PB81-203168

Testing Support for Evaluation of Inspection/Maintenance Issues (Test Groups No. 9 and 10)

Hamilton Test Systems, Inc.
Phoenix, AZ

Prepared for

Environmental Protection Agency
Ann Arbor, MI

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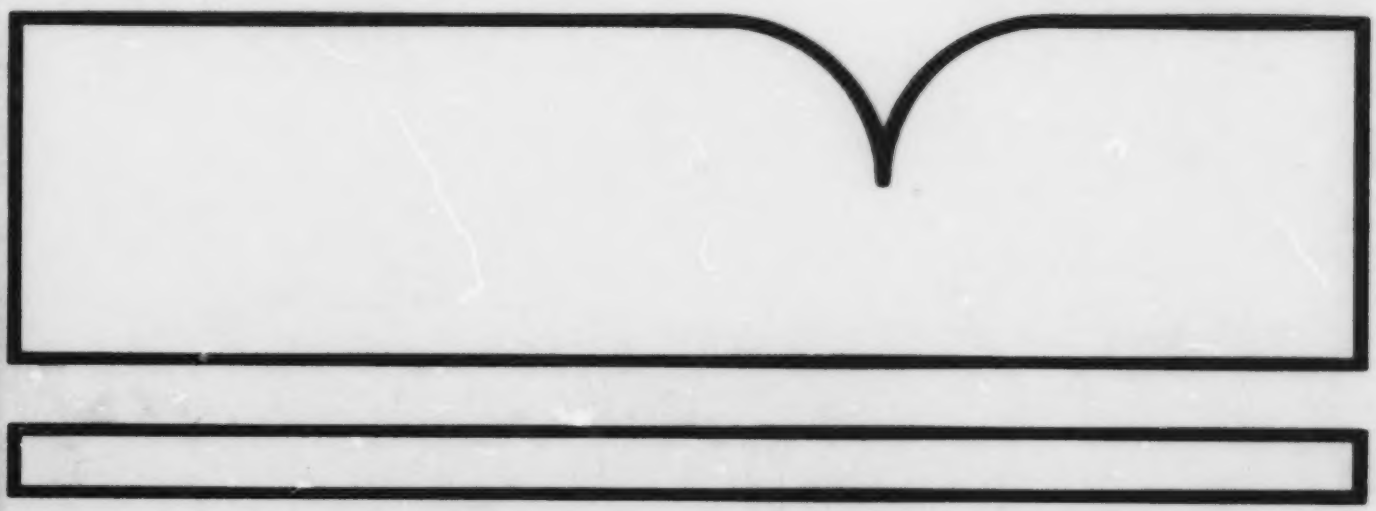

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TESTING SUPPORT FOR EVALUATION OF INSPECTION, MAINTENANCE ISSUES

(TEST GROUP NO. 9 & 10)

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16. ABSTRACT

The intention of test group no. 9 was to evaluate exhaust emissions from vehicles in Portland, Oregon which are subject to a state inspection and maintenance (I/M) program with those in Vancouver, Washington, which are not subject to I/M. Fifty 1976 and fifty 1978 model year vehicles were recruited from Vancouver and tested. Matching vehicles were then recruited from Portland and tested.

The intention of test group no. 10 was to evaluate the effect of specific maintenance tasks on emissions from vehicles which have high emission levels as determined by a state I/M program. Thirty-five vehicles from the Vancouver, Washington area which failed the Oregon State Inspection Test as part of the testing required for test group no. 9 were selected for this group.

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TESTING SUPPORT FOR EVALUATION OF INSPECTION/MAINTENANCE ISSUES

TEST GROUPS NO. 9 & 10

by

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Contract No. 68-03-2829
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Prepared for

U. S. ENVIRONMENTAL PROTECTION AGENCY
Office of Mobile Source Air Pollution Control
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Ann Arbor, Michigan 48105

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5.9 TEST GROUP No. 10 - EFFECT OF SPECIFIC MAINTENANCE TASKS ON EMISSIONS REPAIRS ON I/M FAILED VEHICLES

5.9.1 SUMMARY

The intention of this test group was to evaluate the effect of specific maintenance tasks on emissions from vehicles which have high emission levels as determined by a State I/M program.

Thirty-five (35) vehicles from the Vancouver, Washington area which failed the Oregon State Inspection Test as part of the testing required for Test Group No. 9 (Ref. para. 5.10) were selected for this test group.

Each vehicle was repaired at the HTS laboratory in specific steps with the intention of reducing the idle exhaust emission readings to 225ppm hydrocarbons (HC) and 0.2% carbon monoxide (CO). Upon reducing the HC and CO to these specified levels or as close as possible, each vehicle was tested in accordance with the following sequence of tests: Idle Test, FTP, Highway Fuel Economy Test (HFET), Two Mode Test, Four Mode Test and Propane Gain Checks.

Six (6) vehicles were subjected to additional repairs and retested as specified above. Five had high emission levels measured during the idle @2500 rpm portion of the Idle Test and one had timing excessively retarded.

The FTP emissions of HC and CO were reduced in 34 of the vehicles restored with 19 having HC and CO levels within Federal Standards. The NOx FTP emissions were increased in more cases than reduced after the repairs were made. Twenty vehicles were within the NOx Federal Standards for the initial test while only 15 were within the standards after repair. The FTP and HFET composite results for the initial and final tests of the 35 vehicles were as follows:

COMPOSITE RESULTS - 1976 VEHICLES (26)

	FTP				HFET			
TEST	HC	CO	NOx	MPG	HC	CO	NOx	MPG
Initial:	3.61gpm	51.2gpm	2.92gpm	14.3	1.04gpm	13.8gpm	3.96gpm	20.1
Final:	1.85gpm	13.8gpm	3.43gpm	14.8	0.55gpm	3.5gpm	4.34gpm	20.2
% Change:	-49 %	-73 %	+17 %	+3 %	-47 %	-75 %	+10 %	+0.5 %
Fed. Stds:	1.50gpm	15.0gpm	3.10gpm					

COMPOSITE RESULTS - 1978 VEHICLES (9)

	FTP				HFET			
TEST	HC	CO	NOx	MPG	HC	CO	NOx	MPG
Initial:	2.17gpm	31.2gpm	2.37gpm	17.3	0.45gpm	3.3gpm	3.19gpm	24.6
Final:	1.33gpm	12.9gpm	2.70gpm	17.6	0.35gpm	1.4gpm	3.56gpm	24.8
% Change:	-39 %	-59 %	+14 %	+2 %	-22 %	-58 %	+12 %	+1 %
Fed. Stds:	1.50gpm	15.0gpm	2.00gpm					

5.9.2 VEHICLE SELECTION

Thirty-five vehicles were selected from the Vancouver, Washington vehicles tested as part of Test Group No. 9 . Selection was based on the vehicle failing the Oregon DEQ inspection test. The model years of the vehicles were 1976 (26) and 1978 (9). A listing of the selected vehicles is provided on Table 5.9-1.

The Legend for Table 5.9-1 is as follows:

EPA No. -First digit represents model year
CID -Cubic Inch Displacement
FS -Fuel Metering System
C -Number of Cylinders
IW -Inertia Weight
T -Transmission (1= Manual, 2= Automatic)
AS -Air System (1= Yes, 2= No, 3= Gulp Valve)
CC -Catalytic Converter (1= Yes, 2= No)
EG -EGR System (1= Yes, 2= No)
AC -Air Conditioner (1= Yes, 2= No)
EI -Electronic Ignition (1= Yes, 2= No)

TABLE 5.9-1 VEHICLE IDENTIFICATION INFORMATION

EPA NO	VEH IDENT NO	MAKE	MODEL	CID	FS	C	IW	T	AS	CC	EG	AC	EI
60805	HH45G6B350179	PLYM	VOLAR	318	2V	8	4000	2	2	1	1	2	1
60809	1H57V6Z483314	CHEV	MONTE	350	2V	8	4500	2	2	1	1	1	1
60810	2G37M6P334378	PONT	LEMAN	350	2V	8	4500	2	2	1	1	1	1
60812	2G37M6P199912	PONT	LEMAN	350	2V	8	4500	2	2	1	1	1	1
60814	3J57R6R211062	OLDS	CUTLA	350	4V	8	5000	2	2	1	1	1	1
60815	1D29V62422090	CHEV	MALIB	350	2V	8	4500	2	2	1	1	1	1
60816	3J57R6M212555	OLDS	CUTLA	350	4V	8	5000	2	2	1	1	1	1
60817	4J57J6Z119775	BUICK	REGAL	350	4V	8	5000	2	2	1	1	1	1
60819	TE51526628	TOYOT	COROL	97	2V	4	2500	1	2	2	2	2	2
60820	A6C667A117172	AMC	PACER	258	1V	6	3000	2	1	1	1	2	1
60822	HL45C6B264975	PLYM	VOLAR	225	1V	6	4000	2	2	1	1	1	1
60824	HH45G6B416301	PLYM	VOLAR	318	2V	8	4000	2	2	1	1	1	1
60826	3J35R6R107191	OLDS	CUTLA	350	4V	8	5000	2	2	1	1	1	1
60828	4J57J6Z115127	BUICK	REGAL	350	4V	8	5000	2	2	1	1	1	1
60829	6H30H101057	FORD	TORIN	351	2V	8	4500	2	1	1	1	1	1
60832	HH41C6F241577	PLYM	VOLAR	225	1V	6	4000	2	2	1	1	2	1
60833	6H31H200494	FORD	TORIN	351	2V	8	4500	2	1	1	1	1	1
60834	HP41G6F292895	PLYM	VOLAR	318	2V	8	4000	2	2	1	1	2	1
60836	6D47S6Q111380	CAD	DEVLE	500	4V	8	5500	2	2	1	1	1	1
60837	1H57V6R951181	CHEV	MONTE	350	2V	8	4500	2	2	1	1	1	1
60839	2L69N6P327785	PONT	CATAL	400	2V	8	5000	2	2	1	1	1	1
60840	1H57U6Z449559	CHEV	MONTE	400	4V	8	4500	2	2	1	1	1	1
60841	6W82L230045	FORD	GRANA	250	1V	6	4000	2	1	1	1	1	1
60842	6A31H109678	FORD	TORIN	351	2V	8	4500	2	1	1	1	1	1
60846	1Y27Q6K117301	CHEV	NOVA	305	2V	8	4000	2	2	1	1	1	1
60850	3262174637	VOLKS	DASHR	97	FI	4	2500	1	2	2	1	2	2
80805	3N69R8M169387	OLDS	DELTA	350	4V	8	4000	2	2	1	1	1	1
80806	1Y27D8W154314	CHEV	NOVA	250	1V	6	4000	2	2	1	1	2	1
80821	HL29D8B170005	PLYM	VOLAR	225	2V	6	3500	2	3	1	1	1	1
80832	8W82F102991	FORD	GRANA	302	2V	8	4500	2	1	1	1	1	1
80838	1X17U8W195690	CHEV	NOVA	305	2V	8	4000	2	2	1	1	2	1
80844	8W82L105767	FORD	GRANA	250	1V	6	3500	2	1	1	1	2	1
80845	1783070610	VOLKS	RABBI	89	FI	4	2250	1	2	2	1	2	1
80848	4L09A8G163741	BUICK	CENTY	231	2V	6	3500	2	2	1	1	2	1
80851	1W35U8Z465769	CHEV	MALIB	305	2V	8	4000	2	2	1	1	2	1

5.9.3 TEST PROCEDURES

5.9.3.1 Initial Test

Each vehicle was initially tested as part of Test Group No. 9. The testing consisted of an Idle Test at the DEQ test station and the HTS facility, FTP, 50 MPH Cruise Test, HFET, Four Mode Idle Test, Two Mode Test, Propane Gain Check and a diagostic inspection.

5.9.3.2 Maintenance - First Repair Stage

Upon completion of the initial test, a step by step procedure was followed to repair each vehicle. The actual procedure is shown on Figure 5.9-1, which is also the form used for collecting the repair information. Basically, the first repair stage consisted of performing the simplest and most common repairs. Once the hydrocarbons were reduced to less than 225 ppm after the CO was adjusted to 0.2% the repair phase was completed.

5.9.3.3 Testing Sequence

The sequence of tests performed after the maintenance was as follows:

.Idle Test at HTS facility (Ref. para. 4.3.1)
.Federal Test Procedure (FTP) (Ref. para. 4.3.3 and 4.3.4)
.50 MPH Cruise Test (Ref. para. 4.3.8)
.Highway Fuel Economy Test (HFET) (Ref. para. 4.3.6)
.Four Mode Test (Ref. para. 4.3.9)
.Two Mode Test (Ref. para. 4.3.7)
.Propane Gain Check (Ref. para. 4.3.10)

5.9.3.4 Maintenance - Second Repair Stage

In a limited number of cases (6), additional maintenance was performed. The form used for collecting the information is shown on Figure 5.9-2. The maintenance on five vehicles consisted of replacing or repairing the carburetor. Timing was adjusted to manufacturer's specification on the sixth vehicle. After the maintenance was performed, each vehicle was retested in accordance with the sequence of tests specified in paragraph 5.9.3.3.

FIGURE 5.9-1

RESTORATIVE MAINTENANCE
-FIRST REPAIR STAGE-

EPA NO. 0 _ _ _ _ _ GR/SEQ 1 2 TEST NO. 6 1 DATE 8 0 _ _ _ _

1. OIL DILUTION CHECK __ 1=OK, 2=Needs Oil Change
2. CHOKE OPERATION __ 1=OK, 2=Repaired

Adjust Carburetor if CO @ Idle is greater than 0.2%

3. CO @ IDLE __ . __ %
4. ENGINE IDLE SPEED (NEUTRAL) _ _ _ _ RPM

If idle speed is below spec., adjust and record new speed in step 5.

5. ENGINE IDLE SPEED(NEUTRAL) _ _ _ _ RPM (9999 if not required)
6. HC @ IDLE _ _ _ _ PPM
7. IGN. TIMING @ IDLE (NO DISCONNECTS) (_) _ _

If HC is less than 225ppm proceed to PROPANE GAIN CHECK

8. VACUUM HOSES AND/OR VACUUM LEAKS __ 1=OK, 2=Repaired
9. ADJUST CARB IF HC STILL OVER 225ppm AND CO IS LESS THAN 0.2% __ 1=Not Required, 2=Adjusted
10. ADJUST IDLE SPEED IF NECESSARY

IDLE SPEED (NEUTRAL) _ _ _ _ RPM (9999 if not adjusted)

If HC is less than 225ppm and no obvious misfire, proceed to PROPANE GAIN CHECK

11. SPARK PLUG __ 1=OK
WIRES __ 2=Replaced
DIST. CAP & ROTOR __ 3=Repaired
9=Not Required

If HC is less than 225ppm proceed to PROPANE GAIN CHECK

12. ADJUST THE FOLLOWING TO SPECIFICATION IF REQUIRED

DWELL _ _
BASIC TIMING (_) _ _ (9's if not required)
IDLE SPEED _ _ _ _

PROPANE GAIN CHECK

PROPANE INJECTION IN NEUTRAL _ _ _ RPM 999=Decrease
PROPANE INJECTION IN DRIVE _ _ _ RPM 888=N/A

COMMENTS

_____

_____

_____

_____

RESTORATIVE MAINTENANCE

-SECOND REPAIR STAGE-

EPA NO. 0_____ GR/SEQ 13 TEST NO. 62 DATE 80_____

1.	OIL CHANGED	__ 1=Not Required, 2=Changed
2.	CARBURETOR	__ 1=OK, 2=Repaired, 3=Replaced
3.	HEATED AIR INTAKE SYSTEM DOOR	__ 1=OK, 2=Repaired
4.	CHECK EGR VALVE NOT OPEN AT IDLE	__ 1=OK, 2=Repaired

COMMENTS

FIGURE 5.9-2

5.9.3.5 Shift Speeds

The shift speeds used for vehicles with manual transmissions were 15, 25, and 40 mph. The Toyota Corolla was shifted into fifth gear at 45 mph only during the HFET.

5.9.3.6 Inertia Weight and Horsepower Settings

The inertia weight and horsepower settings were provided by EPA and are shown on Table 5.9-5.

5.9.4 TEST RESULTS

The test data for each of the required tests along with the initial test results obtained in Test Group No. 9 are provided on the following tables.

TABLE	TITLE
Table 5.9-2	DEQ and HTS Idle Test Results
Table 5.9-3	Two Mode & 50 MPH Cruise Tests
Table 5.9-4	Four Mode Test Results
Table 5.9-5	FTP and HFET Results
Table 5.9-6	Diagnostic Inspection Results

Table 5.9-7 provides the DEQ failure mode, the maintenance performed, and comments regarding the final FTP emissions results.

Table 5.9-8 provides the Propane Gain Check results before and after the 1st stage maintenance was performed.

The legends for the tables are as follows:

Legend for Tables 5.9-2 through 5.9-4

SEQ - Test Sequence

- 1 - Initial Test
- 2 - 1st Repair Stage
- 3 - 2nd Repair Stage

1ST - Initial Idle Test
2500 - High Idle Test (2500 RPM)
2ND - Second Idle Test

HC - Hydrocarbons in ppm (Measurements are in hexane in all readings except for "Lab" readings which are in total hydrocarbons.)
CO - Carbon Monoxide in Percent
NOx - Oxides of Nitrogen in ppm

RPM - Engine Idle RPM
LAB - Laboratory Analyzers
GARAGE - EPA-75 Garage Analyzer

STA - Status (the three numbers represent the DEQ Pass/Fail status for HC, CO and RPM respectively. 1=Pass, 2=Fail.)

Legend for Table 5.9-5

SEQ - Test Sequence
ODOM - Odometer reading
IW - Inertia Weight settings
AHP - Actual Horsepower settings
HC - Hydrocarbon Emissions in grams per mile
CO - Carbon Monoxide Emissions in grams per mile
CO_2 - Carbon Dioxide Emissions in grams per mile
NO_x - Oxides of Nitrogen (uncorrected) Emissions in grams per mile
NO_xC - Oxides of Nitrogen Emissions corrected for humidity in grams per mile
MPG - Miles per gallon calculated by the Carbon Balance Method

Legend for Table 5.9-6

MECH ADV - Mechanical Advance
TOTAL ADV - Total Advance
MEAS - Measured Value
SPEC - Specification
NA - Not Applicable

TABLE 5.9-2 DEQ & HTS IDLE TEST RESULTS

		DEQ IDLE TEST									HTS IDLE TEST							
		HC			CO			RPM			HC			CO			RPM	
EPA NO	SEQ	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND	STA	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND
60805	1	570	105	555	4.4	.3	4.2	750	750	221	560	240	660	4.3	.2	4.8	770	780
60805	2										140	140	120	.0	.0	.0	740	750
60809	1	235	190	230	3.0	2.4	2.8	975	975	221	240	140	190	1.6	1.4	1.8	930	940
60809	2										80	30	60	.2	.0	.2	950	920
60810	1	2000	545	2000	8.6	.1	9.0	500	500	221	2160	110	2220	6.8	.0	10.6	470	450
60810	2										50	20	30	.0	.0	.0	860	860
60812	1	1000	295	1345	7.9	1.3	7.9	750	750	221	1480	90	1150	7.3	.5	9.5	700	750
60812	2										190	30	160	.1	.0	.1	970	830
60814	1	600	1405	805	4.1	.1	4.1	700	700	221	620	190	560	2.7	.0	3.1	720	750
60814	2										160	150	80	.0	.0	.0	730	760
60815	1	150	105	185	1.2	2.1	1.5	850	900	221	200	120	190	1.2	1.9	1.8	880	910
60815	2										60	60	60	.0	1.9	.0	990	980
60815	3										40	20	40	.0	.0	.0	710	710
60816	1	605	245	540	1.9	.0	2.7	700	700	221	630	250	570	3.6	.0	4.0	710	760
60816	2										90	80	80	.0	.0	.0	800	790
60817	1	115	65	125	3.8	.8	3.9	800	800	121	160	20	130	3.9	.0	3.9	750	780
60817	2										80	20	60	.0	.0	.0	750	750
60819	1	365	100	390	6.9	1.6	6.4	900	900	221	360	40	320	6.1	.9	6.0	750	790
60819	2										60	20	60	.2	.4	.2	960	960
60820	1	255	95	320	3.9	.3	3.6	750	750	221	260	50	260	3.7	.1	3.9	730	710
60820	2										160	60	100	.1	.1	.1	770	840
60822	1	175	75	240	2.4	.6	2.2	950	950	121	210	80	190	1.4	.4	1.2	900	900
60822	2										140	30	120	.0	.0	.0	780	730
60824	1	380	70	495	3.9	.4	4.4	800	800	221	500	50	570	4.7	.3	4.8	790	840
60824	2										1060	60	1040	.2	.2	.2	730	720

TABLE 5.9-2 DEQ & HTS IDLE TEST RESULTS (CONT'D)

		DEQ IDLE TEST									HTS IDLE TEST							
		HC			CO			RPM			HC			CO			RPM	
EPA NO	SEQ	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND	STA	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND
60826	1	345	705	470	1.9	.4	1.5	900	900	221	570	2080	470	.9	.2	1.0	1000	1010
60826	2										570	750	250	.2	.0	.2	760	780
60826	3										110	280	60	.0	.0	.0	880	960
60828	1	150	35	225	5.3	.4	5.6	700	700	221	200	40	200	5.4	.2	5.7	710	720
60828	2										20	20	20	.1	.0	.1	740	750
60829	1	1285	815	1060	1.0	.0	1.8	1000	1050	221	950	610	1040	.4	.0	.4	980	1020
60829	2										100	340	120	.1	.0	.1	910	920
60832	1	385	140	485	7.4	.2	7.1	850	850	221	560	140	560	7.6	.3	7.5	910	920
60832	2										170	70	140	.1	.1	.0	750	760
60833	1	330	90	325	3.4	.0	3.1	850	850	221	480	110	370	2.5	.0	3.0	820	870
60833	2										120	90	140	.0	.0	.0	970	1000
60834	1	500	400	500	3.1	2.5	3.4	1000	1050	222	510	220	510	3.0	1.8	3.0	1020	1020
60834	2										130	160	90	.0	1.8	.0	740	760
60836	1	360	165	420	5.6	2.5	5.7	850	850	221	420	140	490	4.4	.9	5.0	760	790
60836	2										150	60	150	.0	1.0	.0	720	730
60837	1	105	60	160	3.7	.2	3.8	800	800	121	170	50	160	4.6	.4	4.5	740	780
60837	2										30	20	80	.0	.0	.0	740	740
60839	1	555	215	435	1.9	4.8	2.2	850	850	221	580	200	620	2.6	6.1	2.8	880	880
60839	2										120	120	130	.0	4.4	.0	700	750
60839	3										150	30	120	.0	.0	.0	750	760
60840	1	390	95	365	6.7	.1	6.3	650	650	221	520	120	560	6.1	.3	6.6	690	690
60840	2										80	50	80	.0	.1	.0	750	790
60841	1	105	140	405	3.8	4.3	8.0			12	580	190	540	7.5	3.6	7.6	910	910
60841	2										120	100	140	.0	2.1	.1	1000	940
60841	3										80	50	80	.0	.2	.0	880	940
60842	1	500	130	520	6.9	.1	6.5	1000	1000	221	580	100	570	7.7	.1	8.0	950	950
60842	2										260	60	280	.1	.0	.3	920	930

TABLE 5.9-2 DEQ & HTS IDLE TEST RESULTS (CONT'D)

		DEQ IDLE TEST									HTS IDLE TEST							
		HC			CO			RPM			HC			CO			RPM	
EPA NO	SEQ	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND	STA	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND
60846	1	225	150	280	2.1	.3	1.5	900	900	221	240	70	230	.9	.0	1.0	800	800
60846	2										130	50	120	.0	.1	.0	820	830
60850	1	355	85	170	6.8	1.2	7.0	1000	1000	121	114	100	230	7.4	2.3	7.5	982	970
60850	2										560	580	560	1.0	.3	1.2	1030	950
80805	1	205	50	230	3.7	.1	3.4	900	900	221	200	40	190	1.4	.0	1.9	850	870
80805	2										180	20	110	.0	.1	.0	760	740
80805	3										220	30	210	.0	.0	.0	690	740
80806	1	270	125	235	2.2	.6	1.4	950	950	221	310	150	300	1.1	.8	1.1	930	950
80806	2										190	70	185	.0	.0	.1	830	830
80821	1	220	155	330	3.3	.7	3.7	750	750	221	430	100	380	6.9	.1	6.3	730	720
80821	2										180	100	210	.1	.0	.1	750	770
80832	1	725	145	705	5.0	.3	4.4	700	700	221	480	90	550	3.3	.0	3.4	700	710
80832	2										210	60	130	.1	.0	.0	850	880
80838	1	405	130	365	3.1	.2	2.8	625	650	221	440	90	420	2.2	.0	2.5	580	620
80838	2										90	50	90	.0	.1	.0	680	710
80844	1	230	655	355	2.5	.5	2.4	700	700	221	100	700	160	.3	.1	1.5	710	710
80844	2										130	610	50	.0	.0	.1	630	660
80844	3										50	90	50	.1	.0	.2	920	840
80845	1	100	70	125	2.7	.8	2.8	825	850	121	90	30	100	2.7	.5	2.8	760	780
80845	2										30	30	30	.1	.1	.1	930	930
80848	1	185	85	210	3.0	.6	3.0	950	950	221	200	70	190	1.2	.4	1.3	950	1000
80848	2										100	40	90	.1	.1	.1	920	930
80851	1	340	165	335	3.0	.1	2.4	675	800	221	370	80	410	3.1	.5	3.2	760	780
80851	2										80	30	80	.0	.0	.0	770	800

TABLE 5.9-3 TWO MODE & 50 MPH CRUISE TESTS

		--TWO MODE (30MPH)--					---TWO MODE (IDLE)--					----50 MPH CRUISE---				
		-----LAB----			GARAGE		----LAB----			GARAGE		-----LAB----			GARAGE	
EPA NO	SEQ	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60805	1	1892	.1	250	160	.1	8413	4.1	51	600	4.1	950	.0	489	100	.0
60805	2	1121	.0	195	60	.1	1204	.0	66	70	.0	325	.0	477	20	.0
60809	1	2809	1.9	210	170	2.0	3310	2.0	56	170	2.1	133	.0	734	10	.0
60809	2	467	.0	257	40	.0	299	.1	12	30	.1	210	.0	788	20	.0
60810	1	792	.3	733	50	.3	9999	5.9	40	1950	5.5	180	.1	808	20	.2
60810	2	96	.0	1200	10	.0	301	.0	135	20	.0	246	.0	1250	10	.0
60812	1	1195	.2	506	90	.1	9999	5.6	35	620	6.0	648	.1	1154	40	.2
60812	2	186	.0	980	20	.0	1312	.0	95	180	.0	177	.0	1558	10	.0
60814	1	1263	.0	331	110	.0	5081	1.8	52	350	1.7	492	.0	1087	40	.0
60814	2	653	.0	365	80	.0	613	.0	53	60	.0	212	.0	1100	10	.0
60815	1	2024	.7	551	120	.7	2499	1.0	117	180	1.0	2603	2.0	461	130	2.0
60815	2	2333	1.0	589	160	1.4	2381	.6	68	180	.8	2531	2.0	504	150	2.1
60815	3	1326	.3	602	100	.3	221	.0	61	30	.0	329	.0	826	30	.0
60816	1	472	.0	370	30	.0	7921	1.9	36	630	2.2	90	.0	726	30	.0
60816	2	363	.0	246	60	.0	525	.0	36	70	.0	945	.0	665	80	.0
60817	1	1595	.7	288	120	1.0	2290	3.5	61	140	3.6	277	.0	1195	40	.0
60817	2	142	.0	415	20	.0	218	.0	58	30	.0	154	.0	1108	20	.0
60819	1	1035	.4	950	50	.5	2718	2.5	51	140	2.6	943	.4	1140	40	.4
60819	2	1152	.4	801	60	.5	1219	.2	63	100	.3	1473	.5	1125	50	.5
60820	1	885	.1	1125	90	.1	980	2.7	63	200	2.6	414	.1	1486	50	.1
60820	2	680	.1	1040	20	.1	1127	.1	86	50	.1	310	.1	1165	20	.1
60822	1	1213	.1	2496	100	.1	1855	.4	98	120	.4	662	.1	1237	60	.1
60822	2	1494	.1	2496	120	.1	974	.0	130	120	.0	491	.0	1157	60	.0
60824	1	2883	.1	1723	200	.1	8012	4.4	73	510	4.2	1626	.1	1960	100	.1
60824	2	2605	.1	1775	180	.1	5395	.1	78	560	.1	1473	.1	1893	100	.1

TABLE 5.9-3 TWO MODE & 50 MPH CRUISE TESTS (CONT'D)

		--TWO MODE (30MPH)--					---TWO MODE (IDLE)--					----50 MPH CRUISE---				
		-----LAB----			GARAGE		----LAB----			GARAGE		-----LAB----			GARAGE	
EPA NO	SEQ	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60826	1	1923	.0	808	260	.0	1617	.1	58	190	.1	494	.0	1003	80	.0
60826	2	1571	.0	666	220	.0	943	.1	31	180	.1	775	.0	878	100	.0
60826	3	1189	.0	619	150	.0	735	.0	78	90	.0	699	.0	921	70	.0
60828	1	852	.1	210	50	.2	3300	4.8	41	160	4.7	133	.0	806	20	.0
60828	2	1173	.4	168	90	.5	206	.0	46	30	.0	87	.0	634	20	.0
60829	1	1188	.0	502	130	.0	6598	.1	61	900	.2	818	.0	435	50	.0
60829	2	804	.0	558	90	.0	9131	1.2	60	860	1.3	409	.0	466	20	.0
60832	1	2228	.1	1334	160	.1	6528	5.1	73	410	5.0	861	.0	1883	80	.0
60832	2	1672	.1	1275	110	.1	846	.0	153	80	.0	739	.0	1823	40	.0
60833	1	934	.0	280	80	.0	5114	2.5	48	280	2.8	329	.0	297	20	.0
60833	2	582	.0	263	60	.0	1136	.0	68	140	.0	442	.0	285	50	.0
60834	1	4791	.8	147	360	1.0	4129	1.2	90	200	1.2	3798	1.4	307	230	1.6
60834	2	4199	.8	130	320	.6	1563	.0	130	140	.1	3798	1.7	277	230	1.7
60836	1	2381	2.2	121	140	2.3	7130	5.1	36	410	4.8	6418	.5	271	90	.6
60836	2	2544	2.9	103	170	2.8	5165	1.9	48	300	2.0	821	.5	270	70	.5
60837	1	798	.1	209	40	.1	2465	3.5	45	100	3.4	339	.0	593	30	.0
60837	2	2404	.0	356	320	.0	1220	.0	50	160	.0	311	.0	576	20	.0
60839	1	4222	4.3	375	280	4.1	7357	1.7	46	570	1.7	4152	6.0	288	240	5.5
60839	2	3460	3.5	445	230	3.6	1066	.0	68	160	.0	3771	5.4	420	240	5.3
60839	3	145	.0	626	10	.0	852	.0	78	120	.0	136	.0	938	0	.0
60840	1	1602	.1	409	90	.1	6384	4.4	27	340	4.4	250	.0	790	20	.0
60840	2	617	.0	411	50	.0	406	.0	129	40	.0	709	.0	705	50	.0
60841	1	2277	2.3	1150	140	2.4	5736	4.7	58	380	4.3	163	.0	1992	40	.0
60841	2	843	.1	1461	70	.2	301	.0	198	20	.0	215	.0	2102	10	.0
60841	3	781	.0	1661	100	.0	992	.0	133	140	.0	390	.0	2496	60	.0
60842	1	1694	.0	1705	240	.1	5031	5.8	71	400	5.6	660	.0	573	50	.1
60842	2	862	.0	1563	100	.0	1709	.0	96	220	.0	691	.1	500	50	.1

TABLE 5.9-3 TWO MODE & 50 MPH CRUISE TEST (CONT'D)

		--TWO MODE (30MPH)--					---TWO MODE (IDLE)--					----50 MPH CRUISE---				
		-----LAB----			GARAGE		----LAB----			GARAGE		-----LAB----			GARAGE	
EPA NO	SEQ	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60846	1	1308	.1	347	100	.1	4042	1.6	83	210	1.7	292	.1	821	40	.1
60846	2	648	.0	348	50	.0	1128	.0	49	120	.0	259	.0	792	30	.0
60850	1	2257	.2	1598	120	.2	2942	4.3	44	130	4.2	2116	.3	1468	100	.3
60850	2	2407	.1	1361	160	.1	6374	.7	64	600	.7	1517	.2	1581	80	.2
80805	1	1724	1.0	258	130	1.3	4361	3.0	41	240	3.1	154	.0	405	30	.0
80805	2	322	.0	1025	20	.0	1173	.0	126	140	.0	298	.0	484	20	.0
80805	3	295	.0	552	50	.0	1298	.0	76	190	.0	420	.0	716	50	.0
80806	1	2407	.6	130	200	.8	3147	1.2	42	200	1.0	510	.0	483	60	.0
80806	2	846	.0	180	60	.0	2548	.2	28	200	.3	546	.0	512	20	.0
80821	1	1901	.1	2493	120	.1	4864	3.6	88	240	3.6	393	.0	950	20	.0
80821	2	2247	.4	2493	150	.4	1919	.1	71	130	.1	1442	.0	1013	120	.0
80832	1	2657	.2	2134	220	.3	6127	2.0	108	500	2.4	243	.0	2496	60	.0
80832	2	686	.0	2329	100	.0	472	.0	198	60	.0	322	.0	2496	70	.0
80838	1	830	.0	195	90	.1	5165	2.9	11	400	3.0	218	.0	584	20	.0
80838	2	301	.0	233	20	.0	218	.0	83	10	.0	515	.0	532	30	.0
80844	1	791	.0	106	70	.0	1402	.9	43	70	1.0	540	.0	160	40	.0
80844	2	1127	.0	121	130	.0	3049	2.5	53	160	2.4	414	.0	158	40	.0
80844	3	601	.0	128	110	.0	105	.0	101	40	.0	537	.0	180	80	.0
80845	1	1314	.6	2808	150	.5	1819	1.3	55	80	1.2	3197	.7	1336	160	.7
80845	2	495	.0	366	30	.1	88	.0	7	10	.0	467	.0	436	20	.1
80848	1	1543	.5	1798	110	.5	3120	2.6	111	170	2.7	338	.0	1736	30	.1
80848	2	772	.1	1798	80	.2	1531	.4	58	140	.4	249	.0	2471	40	.0
80851	1	87	.0	28	30	.0	313	.1	8	40	.1	68	.0	78	20	.0
80851	2	313	.0	160	40	.0	1280	.0	13	120	.1	316	.0	387	40	.0

TABLE 5.9-4 FOUR MODE TEST RESULTS

		----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	SEQ	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60805	1	7942	3.7	48	560	3.7	2939	.1	180	270	.1	7932	3.9	46	590	3.8	6749	4.2	48	540	4.1
60805	2	5796	.2	53	490	.2	2558	.1	165	220	.2	1240	.0	66	90	.0	1121	.0	103	80	.0
60809	1	3420	1.9	56	180	2.0	1158	1.1	148	50	1.2	3390	2.0	56	200	2.2	3470	2.0	113	240	2.1
60809	2	299	.1	12	60	.1	131	.0	386	20	.0	504	.2	32	40	.4	577	.2	45	50	.1
60810	1	9999	5.9	12	2000	5.4	997	.2	135	180	.3	9999	6.9	17	1550	6.5	9999	6.9	10	1680	6.4
60810	2	332	.0	111	20	.0	142	.0	213	10	.0	246	.0	88	20	.0	139	.0	275	10	.0
60812	1	9999	5.8	70	900	5.4	1006	.0	244	100	.1	9999	6.5	35	800	6.0	7206	6.6	20	450	6.2
60812	2	877	.0	227	120	.0	82	.0	670	10	.0	504	.0	105	70	.0	470	.0	297	70	.0
60814	1	5502	1.7	35	390	1.6	1526	.0	154	200	.0	4610	1.9	42	300	2.0	3367	1.9	52	250	1.6
60814	2	344	.0	61	30	.0	270	.0	238	40	.0	485	.0	48	60	.0	179	.0	135	20	.0
60815	1	1994	.4	50	130	.4	1403	1.3	122	60	1.3	2024	.1	45	200	.1	1501	.1	55	120	.1
60815	2	1210	.1	56	120	.1	2014	1.9	111	100	2.1	2115	.7	58	140	.9	2412	.6	133	180	.7
60815	3	393	.0	58	40	.0	221	.0	148	20	.0	203	.0	58	20	.0	200	.0	78	20	.0
60816	1	6598	1.0	33	640	1.0	1164	.0	158	150	.0	7029	2.3	33	560	2.4	4042	2.5	43	320	2.5
60816	2	807	.0	36	80	.0	914	.0	149	110	.0	626	.0	31	70	.0	320	.0	44	40	.0
60817	1	2302	3.2	61	140	3.3	1005	.8	140	70	1.0	2216	3.3	58	140	3.5	2222	3.4	71	160	3.6
60817	2	368	.0	56	50	.0	59	.0	188	20	.0	240	.0	51	40	.0	127	.0	51	20	.0
60819	1	2718	2.3	43	200	2.3	277	.3	103	30	.5	2909	2.5	38	220	2.6					
60819	2	1366	.2	46	100	.2	252	.3	103	50	.3	1464	.2	48	120	.2					
60820	1	2969	2.1	53	200	2.2	442	.1	365	70	.1	3350	2.6	56	220	2.4	3109	2.8	53	240	2.6
60820	2	1457	.1	53	140	.1	356	.1	330	20	.1	1072	.1	81	60	.1	999	.1	153	60	.1
60822	1	2045	.6	73	120	.6	616	.1	696	60	.1	1819	.3	68	120	.5	1543	.1	143	110	.2
60822	2	2869	.0	63	380	.0	830	.1	619	80	.2	1035	.0	71	140	.0	833	.0	113	120	.0
60824	1	9999	4.4	41	700	4.4	1409	.2	362	90	.2	6929	3.2	56	480	3.2	6297	3.5	58	460	3.3
60824	2	6799	.1	63	650	.1	1035	.1	382	70	.2	7130	.1	71	720	.1	4994	.1	106	500	.1

TABLE 5.9-4 FOUR MODE TEST RESULTS (CONT'D)

		----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	SEQ	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60826	1	634	.0	78	90	.0	5315	.0	265	800	.0	390	.0	78	70	.0	172	.0	280	40	.0
60826	2	491	.0	53	70	.0	4423	.0	243	640	.0	420	.0	53	60	.0	163	.0	83	40	.0
60826	3	742	.0	56	80	.0	4072	.0	258	550	.0	466	.0	68	50	.0	209	.0	145	20	.0
60828	1	3220	4.8	31	160	4.6	674	.1	153	50	.1	3160	4.9	43	150	4.6	3109	4.9	46	200	4.8
60828	2	151	.0	41	20	.0	62	.0	143	20	.0	127	.0	58	20	.0	120	.0	78	20	.0
60829	1	2427	.0	93	300	.0	2618	.0	185	300	.0	5586	.2	86	750	.2	3310	1.1	205	300	1.0
60829	2	9011	.9	60	850	.8	3678	.0	212	420	.1	8840	1.4	55	900	1.4	3096	2.4	72	270	2.3
60832	1	6558	4.9	58	430	4.8	1317	.1	327	100	.1	6468	4.7	58	420	4.5	5766	4.9	71	440	4.8
60832	2	1586	.1	93	100	.1	1029	.2	459	60	.2	690	.0	98	60	.0	999	.0	285	100	.0
60833	1	4824	1.9	51	300	1.9	546	.0	106	20	.0	5004	2.4	51	300	2.5	4703	2.7	81	370	2.4
60833	2	1519	.0	68	180	.0	723	.0	108	80	.0	1167	.0	78	120	.0	570	.0	185	80	.0
60834	1	5983	2.1	132	320	2.0	3497	1.7	75	200	2.2	6244	2.2	32	380	2.2	5031	2.2	60	360	2.1
60834	2	4199	.2	87	400	.2	3798	2.5	72	200	2.0	1189	.0	132	120	.0	1333	.0	431	230	.0
60836	1	6418	4.2	31	410	4.0	1831	1.3	101	80	1.4	6929	5.2	36	420	5.0	5415	4.7	48	380	4.4
60836	2	5175	1.0	38	420	1.1	2658	2.9	71	140	3.1	5375	1.8	43	380	2.1	4002	1.6	78	300	1.5
60837	1	2756	3.5	37	120	3.4	516	.0	187	30	.1	2511	3.7	42	100	3.6	2566	4.1	47	160	4.0
60837	2	5232	.0	52	700	.1	339	.0	154	40	.0	1618	.0	52	200	.0	5171	.0	82	700	.0
60839	1	7250	2.1	33	570	2.2	4473	5.5	113	200	5.1	6729	2.2	41	500	2.3	4673	2.3	71	380	2.3
60839	2	619	.0	73	100	.0	3420	4.5	126	160	4.5	873	.0	78	120	.0	362	.0	173	60	.0
60839	3	433	.0	71	40	.0	75	.0	213	0	.0	558	.0	76	70	.0	231	.0	148	30	.0
60840	1	6936	4.2	27	360	4.0	1006	.1	167	60	.2	6024	4.4	27	320	4.2	4740	4.5	27	300	4.3
60840	2	1006	.0	41	80	.0	376	.0	201	30	.1	461	.0	46	40	.0	458	.0	46	40	.0
60841	1	9999	5.9	38	580	5.6	3470	3.7	335	170	3.9	6297	5.0	56	420	4.7	4673	5.4	71	330	4.8
60841	2	1617	.1	126	110	.1	2372	2.3	612	100	2.2	852	.0	145	80	.0	659	.0	477	60	.0
60841	3	1693	.0	126	280	.0	2320	2.0	629	120	2.0	1066	.0	123	140	.0	558	.0	477	90	.0
60842	1	6334	4.6	26	370	4.6	688	.1	341	60	.1	6615	4.9	39	390	4.8	5202	5.7	31	400	5.4
60842	2	2425	.0	66	290	.0	519	.0	216	50	.0	2346	.0	89	260	.0	1379	.0	224	160	.0

TABLE 5.9-4 FOUR MODE TEST RESULTS (CONT'D)

		----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	SEQ	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60846	1	5034	1.5	33	400	1.6	1029	.2	165	90	.3	3470	1.2	48	250	1.3	2739	1.2	81	240	1.2
60846	2	1275	.0	44	140	.0	363	.1	169	40	.1	871	.0	51	100	.0	473	.0	141	60	.0
60850	1	2496	4.1	34	100	3.9	1624	.9	121	80	.9	2789	4.3	29	120	4.2					
60850	2	7808	.5	31	740	.5	4199	.1	136	350	.1	7507	.6	54	750	.5					
80805	1	4373	3.0	28	250	3.0	653	.3	123	60	.4	4272	2.8	38	260	2.8	2949	3.3	43	200	3.4
80805	2	922	.0	103	100	.0	127	.0	410	10	.0	996	.0	133	120	.0	448	.0	180	50	.0
80805	3	1225	.0	56	170	.0	191	.0	173	40	.0	1096	.0	61	160	.0	616	.0	61	100	.0
80806	1	3738	1.1	50	300	1.3	547	.0	139	50	.0	3137	.7	37	250	.7	2625	1.2	90	220	1.3
80806	2	821	.0	31	70	.0	729	.1	83	50	.1	1962	.1	26	190	.2	1913	.4	106	160	.4
80821	1	4413	3.0	56	210	3.1	1096	.1	260	60	.1	4834	3.7	53	250	3.8	4573	3.6	53	280	3.7
80821	2	3109	.3	56	240	.2	1464	.1	295	140	.1	1565	.1	46	120	.1	1510	.1	81	120	.0
80832	1	9999	5.5	46	1080	5.8	1158	.0	619	100	.0	3922	1.3	46	360	1.4	8493	6.3	31	740	7.0
80832	2	5155	.9	66	400	.9	377	.0	624	80	.0	417	.0	133	60	.0	371	.1	178	50	.0
80838	1	5114	2.7	23	370	2.6	478	.0	93	50	.0	7901	2.7	8	650	2.6	4994	2.9	13	400	2.9
80838	2	359	.0	58	20	.0	264	.0	121	10	.0	237	.0	53	10	.0	176	.0	128	0	.0
80844	1	1280	.5	38	60	.6	1617	.0	61	230	.0	729	.4	41	50	.5	1528	1.2	58	100	1.3
80844	2	2421	1.3	51	140	1.3	2919	.0	68	400	.0	2219	1.2	51	140	1.4	2663	2.3	76	200	2.5
80844	3	295	.0	63	70	.0	1586	.0	73	200	.0	176	.0	58	50	.0	136	.0	233	40	.0
80845	1	1321	1.2	52	80	1.1	960	.3	110	30	.5	1740	1.2	47	80	1.1					
80845	2	106	.0	10	20	.0	210	.0	30	20	.0	100	.0	10	20	.0					
80848	1	3270	2.7	53	180	2.8	653	.3	255	50	.3	3310	3.0	41	180	3.0	2869	2.8	130	200	2.8
80848	2	1243	.2	43	140	.3	218	.0	427	40	.0	1714	.6	33	160	.6	1494	.5	128	160	.6
80851	1	384	.1	8	40	.1	96	.0	23	30	.0	313	.1	8	40	.1	298	.1	6	40	.1
80851	2	540	.0	16	80	.0	255	.0	91	40	.0	1929	.5	21	180	.7	1485	.3	33	160	.5

TABLE 5.9-5 FTP & HFET RESULTS

EPA NO	SEQ	DATE	ODOM	IW	AHP	FTP HC	FTP CO	FTP CO2	FTP NOX	FTP NOXC	FTP MPG	HFET HC	HFET CO	HFET CO2	HFET NOX	HFET MPG
60805	1	801010	40431	4000	13.2	3.68	39.05	556.7	2.21	1.85	14.1	.57	2.25	482.8	2.23	18.17
60805	2	801028		4000	13.2	1.35	7.95	584.5	2.23	2.00	14.7	.29	.81	479.2	2.15	18.42
60809	1	801015	40175	4500	14.0	3.73	67.80	588.3	2.31	2.10	12.5	.52	10.24	475.1	3.93	17.99
60809	2	801104		4500	14.0	1.75	23.89	634.9	2.73	2.67	13.1	.20	2.64	479.3	4.19	18.32
60810	1	801015	22531	4500	12.7	7.49	60.76	503.0	3.08	2.87	14.3	.71	7.33	429.0	4.26	20.03
60810	2	801113		4500	12.7	.68	4.97	633.8	5.45	4.81	13.8	.09	.16	465.3	6.47	19.04
60812	1	801016	44563	4500	12.7	6.76	99.06	478.1	4.62	4.20	13.5	1.14	12.00	398.9	7.00	21.05
60812	2	801104		4500	12.7	1.19	6.97	601.1	5.07	4.92	14.4	.17	.14	428.4	5.82	20.66
60814	1	801017	35315	5000	14.7	2.27	23.77	560.9	3.32	3.05	14.6	.32	1.27	427.9	4.52	20.58
60814	2	801028		5000	14.7	1.62	7.66	618.2	3.46	3.12	14.0	.18	.18	457.1	4.54	19.36
60815	1	801020	85449	4500	14.0	4.67	71.32	559.1	1.94	1.87	12.9	2.46	46.51	419.8	1.87	17.71
60815	2	801118		4500	14.0	4.12	68.76	584.7	1.84	1.74	12.6	2.33	48.12	448.0	2.10	16.70
60815	3	801119		4500	14.0	1.16	12.82	656.0	3.74	3.57	13.0	.16	.50	477.9	4.38	18.51
60816	1	801021	79669	5000	14.7	2.21	29.03	590.4	3.21	2.91	13.8	.21	1.24	441.5	3.63	19.97
60816	2	801113		5000	14.7	1.26	9.62	646.7	2.98	2.56	13.3	.12	.31	468.5	3.93	18.89
60817	1	801022	35722	5000	14.7	1.39	42.77	649.8	3.41	3.02	12.3	.14	2.70	467.9	5.09	18.76
60817	2	801111		5000	14.7	.54	7.79	717.0	3.91	3.64	12.1	.09	.52	494.3	5.80	17.90
60819	1	801027	75287	2500	9.4	2.52	25.34	355.7	1.87	1.72	22.0	.67	7.83	246.5	2.43	33.98
60819	2	801028		2500	9.4	2.07	19.31	374.7	1.95	1.77	21.5	.67	7.61	247.7	2.41	33.88
60820	1	801027	55030	3000	11.3	1.75	25.73	426.8	3.65	3.29	18.8	.37	2.97	364.2	4.49	23.97
60820	2	801028		3000	11.3	1.56	5.48	437.2	3.62	3.22	19.7	.32	1.85	364.8	3.72	24.05
60822	1	801029	50625	4000	13.2	2.14	28.92	486.7	5.12	4.56	16.5	.99	15.87	377.2	4.05	21.88
60822	2	801030		4000	13.2	1.45	18.62	492.4	5.17	4.67	16.9	.51	7.37	400.3	4.24	21.45
60824	1	801029	71048	4000	13.2	5.13	44.05	527.1	6.16	5.66	14.5	1.83	5.13	432.1	7.37	19.88
60824	2	801031		4000	13.2	4.15	5.37	574.3	7.02	6.56	14.9	1.55	3.11	448.5	7.96	19.35

TABLE 5.9-5 FTP & HFET RESULTS (CONT'D)

EPA NO	SEQ	DATE	ODOM	IW	AHP	FTP HC	FTP CO	FTP CO2	FTP NOX	FTP NOXC	FTP MPG	HFET HC	HFET CO	HFET CO2	HFET NOX	HFET MPG
60826	1	801030	63657	5000	14.7	1.72	10.96	685.9	3.85	3.51	12.5	.24	.33	513.7	4.67	17.22
60826	2	801103		5000	14.7	2.42	11.55	646.1	3.22	3.12	13.2	.38	.23	499.1	3.99	17.71
60826	3	801104		5000	14.7	1.36	5.26	676.2	3.44	3.36	12.9	.30	.13	508.9	3.96	17.39
60828	1	801030	39269	5000	14.7	1.99	59.90	604.2	2.47	2.23	12.6	.30	5.20	455.6	3.68	19.08
60828	2	801103		5000	14.7	.58	11.73	666.1	2.16	2.10	12.9	.06	.29	461.2	3.26	19.20
60829	1	801031	40495	4500	14.0	3.42	27.87	606.8	3.14	2.84	13.4	.76	1.46	489.7	3.58	17.94
60829	2	801104		4500	14.0	3.51	38.38	554.4	2.77	2.79	14.2	.80	1.82	505.9	3.78	17.35
60832	1	801103	66518	4000	13.2	3.64	48.86	432.6	4.79	4.84	17.0	.94	4.46	363.9	6.41	23.71
60832	2	801104		4000	13.2	1.79	10.69	470.0	5.57	5.53	18.0	.69	2.27	378.1	6.47	23.10
60833	1	801105	67399	4500	14.0	3.46	41.49	636.0	1.70	1.63	12.5	.59	2.75	532.9	2.19	16.45
60833	2	801107		4500	14.0	1.77	10.04	688.1	1.90	1.84	12.5	.46	1.36	523.2	2.02	16.83
60834	1	801105	62320	4000	13.2	6.90	73.85	518.1	1.41	1.36	13.5	3.63	29.92	415.2	1.89	18.72
60834	2	801106		4000	13.2	5.36	41.98	536.5	1.58	1.57	14.3	3.63	37.78	404.2	1.59	18.67
60836	1	801106	68756	5500	15.3	4.60	75.08	678.9	1.31	1.23	10.9	1.51	20.84	580.1	1.66	14.36
60836	2	801107		5500	15.3	3.72	44.06	772.0	1.82	1.74	10.4	.94	12.62	586.9	1.98	14.55
60837	1	801106	76300	4500	14.0	2.58	54.02	630.2	3.01	2.89	12.3	1.34	4.64	472.0	3.28	18.34
60837	2	801107		4500	14.0	1.88	20.64	658.8	2.98	2.91	12.7	.28	1.76	468.0	3.07	18.80
60839	1	801110	43440	5000	13.4	6.86	175.13	572.1	1.45	1.36	10.2	4.20	151.46	403.9	1.22	13.53
60839	2	801111		5000	13.4	4.47	20.86	605.7	1.84	1.69	11.0	3.57	135.11	420.1	1.67	13.78
60839	3	801112		5000	13.4	.69	5.54	707.0	4.57	4.13	12.4	.12	.11	515.7	5.27	17.18
60840	1	801110	60476	4500	12.7	3.84	47.63	614.5	3.35	3.02	12.6	.58	3.50	492.4	4.15	17.74
60840	2	801112		4500	12.7	1.10	2.86	678.7	3.47	3.06	12.9	.29	1.61	503.1	3.84	17.51
60841	1	801112	71038	4000	13.2	1.07	18.71	591.1	5.78	5.27	14.2	.19	1.09	490.6	8.66	17.99
60841	2	801113		4000	13.2	1.23	15.71	558.0	7.97	7.19	15.1	.17	.33	466.7	9.19	18.96
60841	3	801117		4000	13.2	.95	6.54	559.3	8.65	8.03	15.5	.21	.14	456.8	11.53	19.37
60842	1	801112	95328	4500	14.0	5.71	86.83	552.5	2.85	2.52	12.5	1.21	8.21	470.9	3.22	18.19
60842	2	801114		4500	14.0	2.57	13.60	636.4	2.76	2.40	13.3	.77	3.21	482.8	2.54	18.09

TABLE 5.9-5 FTP & HFET RESULTS (CONT'D)

EPA NO	SEQ	DATE	ODOM	IW	AHP	FTP HC	FTP CO	FTP CO2	FTP NOX	FTP NOXC	FTP MPG	HFET HC	HFET CO	HFET CO2	HFET NOX	HFET MPG
60846	1	801114	69027	4000	13.2	2.15	23.26	564.8	3.34	3.00	14.6	.42	4.53	458.4	3.70	18.99
60846	2	801117		4000	13.2	1.26	9.77	567.3	2.87	2.66	15.1	.24	1.27	442.0	3.47	19.94
60850	1	801118	37681	2500	8.0	2.19	29.34	335.9	3.38	3.16	22.8	1.17	4.11	236.6	3.85	35.94
60850	2	801119		2500	8.0	2.73	6.00	334.4	3.68	3.45	25.2	1.12	2.59	230.6	4.46	37.22
80805	1	801009	60245	4000	11.3	2.16	45.44	533.5	1.35	1.19	14.5	.44	6.03	396.8	1.68	21.75
80805	2	801028		4000	11.3	1.38	8.53	531.0	1.76	1.59	16.2	.23	.56	391.1	2.20	22.58
80805	3	801029		4000	11.3	1.69	10.18	506.0	2.53	2.29	16.8	.24	.45	371.0	2.67	23.81
80806	1	801009	42537	4000	10.6	2.14	29.64	451.3	1.58	1.44	17.6	.37	2.94	335.0	1.93	26.02
80806	2	801104		4000	10.6	1.98	24.01	460.2	1.33	1.28	17.6	.31	2.56	378.6	2.14	23.12
80821	1	801021	29787	3500	9.3	3.15	39.18	424.4	2.28	2.06	17.9	.49	2.27	349.7	2.39	24.99
80821	2	801104		3500	9.3	1.90	19.91	440.3	2.19	2.06	18.6	.35	2.31	338.5	2.33	25.83
80832	1	801024	29522	4500	9.5	3.03	41.50	529.0	6.31	5.84	14.7	.29	1.19	390.3	8.46	22.56
80832	2	801027		4500	9.5	1.00	9.59	571.5	7.37	6.62	15.0	.23	.31	390.8	8.66	22.62
80838	1	801030	5290	4000	12.7	2.29	32.61	524.2	2.14	1.93	15.2	.21	1.71	438.6	2.65	20.06
80838	2	801031		4000	12.7	.64	5.52	565.2	2.58	2.41	15.4	.10	.25	439.1	2.65	20.16
80844	1	801105	51156	3500	8.6	.98	12.60	494.9	1.43	1.38	17.1	.27	.25	377.1	.83	23.44
80844	2	801107		3500	8.6	1.12	16.13	486.8	1.34	1.30	17.2	.29	.38	368.8	.77	23.95
80844	3	801110		3500	8.6	.79	7.18	514.4	1.64	1.47	16.8	.22	.03	367.1	.88	24.11
80845	1	801107	58316	2250	7.3	2.04	17.96	317.1	2.06	2.06	25.2	1.53	10.94	215.0	2.64	37.42
80845	2	801110		2250	7.3	1.30	6.52	347.8	2.46	2.22	24.5	1.45	4.82	218.2	3.12	38.49
80848	1	801107	27247	3500	10.7	1.76	32.20	463.9	4.14	4.03	17.1	.21	2.13	388.4	6.27	22.60
80848	2	801111		3500	10.7	.97	11.81	479.7	5.03	4.67	17.7	.12	.29	386.1	7.81	22.92
80851	1	801219	17396	4000	11.1	2.00	29.64	494.0	1.69	1.41	16.2	.21	2.09	396.0	1.85	22.17
80851	2	801222		4000	11.1	1.69	20.95	504.9	1.41	1.30	16.3	.15	1.28	406.0	1.77	21.71

TABLE 5.9-6 DIAGNOSTIC INSPECTION RESULTS

EPA NO	IDLE SPEED MEAS	IDLE SPEED SPEC	DWELL MEAS	DWELL SPEC	TIMING MEAS	TIMING SPEC	MECH ADV MEAS	MECH ADV SPEC	TOTAL ADV MEAS	TOTAL ADV SPEC	PROBLEM AREAS
60805	680	750	NA	NA	+02	+02	20	18	42	40	NONE
60809	610	600	NA	NA	+04	+06	17	20	36	38	SPARK PLUGS
60810	390	650	NA	NA	+19	+16	30	24	49	44	IDLE SPEED, TIMING, PCV
60812	510	550	NA	NA	+19	+16	31	24	49	44	TIMING, SPARK PLUGS, EGR
60814	480	550	NA	NA	+19	+22	29	29	48	51	IDLE SPEED, TIMING
60815	570	600	NA	NA	+10	+06	23	20	42	38	TIMING
60816	500	550	NA	NA	NA	+22	NA	29	NA	51	NONE
60817	550	600	NA	NA	+11	+12	17	18	38	38	NONE
60819	710	850	53	52	+07	+10	17	25	22	39	IDLE SPEED, TIMING
60820	640	550	NA	NA	+22	+08	33	18	34	34	IDLE SPEED, TIMING, EGR, PCV, AIR FILTER
60822	750	750	NA	NA	+01	+02	17	16	36	32	AIR FILTER
60824	820	750	NA	NA	+05	+02	22	18	40	40	TIMING, EGR, AIR FILTER
60826	640	550	NA	NA	+19	+20	25	27	45	49	IDLE SPEED
60828	590	600	NA	NA	+12	+12	18	18	38	38	NONE
60829	670	650	NA	NA	+12	+12	26	25	57	51	NONE
60832	960	750	NA	NA	+05	+02	19	16	37	32	IDLE SPEED, TIMING
60833	580	650	NA	NA	+05	+04	15	17	42	43	NONE
60834	940	750	NA	NA	+03	+02	18	18	43	40	IDLE SPEED, SPARK PLUGS
60836	600	600	NA	NA	+04	+06	14	17	41	41	NONE
60837	540	600	NA	NA	+06	+06	17	20	38	38	NONE
60839	600	550	NA	NA	+17	+16	26	24	48	46	EGR
60840	520	600	NA	NA	+08	+08	21	21	37	36	IDLE SPEED, SPARK PLUGS
60841	630	650	NA	NA	+09	+04	16	13	31	32	TIMING, SPARK PLUGS, EGR
60842	600	650	NA	NA	+09	+12	26	30	49	58	TIMING, VAC ADV, PLUGS, AIR PUMP
60846	520	600	NA	NA	+10	+08	18	21	36	35	IDLE SPEED
60850	960	925	58	47	-02	-03	14	14	14	25	VAC ADVANCE
80805	560	550	NA	NA	+08	+20	12	33	36	52	TIMING
80806	530	550	NA	NA	+07	+10	18	20	45	41	TIMING, AIR FILTER
80821	680	750	NA	NA	+12	+12	17	18	41	35	SPARK PLUGS, AIR PUMP
80832	480	600	NA	NA	+03	+02	17	16	44	43	IDLE SPEED, EGR
80838	440	500	NA	NA	+06	+04	18	17	38	36	IDLE SPEED
80844	530	600	NA	NA	NA	NA	NA	NA	NA	NA	IDLE SPEED
80845	770	925	51	47	-02	-03	14	15	23	21	IDLE SPEED, DWELL
80848	600	600	NA	NA	+13	+15	18	23	37	38	NONE
80851	500	500	NA	NA	+06	+04	17	17	36	36	AIR FILTER

TABLE 5.9-7 MAINTENANCE AND RESULTS

EPA NO.	DEQ FAILURE	MAINTENANCE PERFORMED	FTP RESULTS
60805	HC & CO	Adjusted Carburetor and Idle Speed	HC and CO significantly reduced (meets Federal Standards).
60809	HC & CO	Adjusted Carburetor	HC and CO significantly reduced, but both slightly above Federal Standards.
60810	HC & CO	Adjusted Carburetor	HC and CO significantly reduced (meets Federal Standards).
60812	HC & CO	Adjusted Carburetor	HC and CO significantly reduced (meets Federal Standards).
60814	HC & CO	Adjusted Carburetor	HC and CO reduced, but HC slightly above Federal Standards.
60815	HC & CO	1st: Adjusted Carburetor 2nd: Replaced Carburetor	No improvement. HC and CO significantly reduced (meets Federal Standards).
60816	HC & CO	Adjusted Carburetor	HC and CO significantly reduced (meets Federal Standards).
60817	CO	Adjusted Carburetor	HC and CO significantly reduced (meets Federal Standards).
60819	HC & CO	Adjusted Carburetor Note: CO @ 2500 rpm reads 0.4%	HC and CO reduced but still above Federal Standards.

TABLE 5.9-7 MAINTENANCE AND RESULTS (CONT'D)

EPA NO.	DEQ FAILURE	MAINTENANCE PERFORMED	FTP RESULTS
60820	HC & CO	Adjusted Carburetor and Idle Speed	HC and CO significantly reduced (meets Federal Standards).
60822	CO	Adjusted Carburetor	HC and CO reduced but CO slightly above Federal Standards.
60824	HC & CO	Adjusted Carburetor; replaced plugs, and adjusted timing.	HC and CO reduced but HC still above Federal Standards.
60826	HC & CO	1st: Adjusted Carburetor 2nd: Repaired Carburetor	No improvement. HC and CO reduced (meets Federal Standards).
60828	HC & CO	Adjusted Carburetor	HC and CO significantly reduced (meets Federal Standards).
60829	HC & CO	Adjusted Carburetor	No Improvement
60832	HC & CO	Adjusted Carburetor	HC and CO significantly reduced, but HC still above Federal Standards.
60833	HC & CO	Adjusted Carburetor	HC and CO significantly reduced, but HC still above Federal Standards.
60834	HC, CO & Idle Speed	Adjusted Carburetor Note: CO @ 2500 rpm reads 1.8%. EPA waived replacement of carburetor.	HC and CO reduced, but both still above Federal Standards.
60836	HC & CO	Adjusted Carburetor Note: CO @ 2500 rpm reads 1.0%. EPA waived further repairs.	HC and CO reduced, but both still above Federal Standards.
60837	CO	Adjusted Carburetor	HC and CO significantly reduced, but both still slightly above Federal Standards.

TABLE 5.9-7 MAINTENANCE AND RESULTS (CONT'D)

EPA NO.	DEQ FAILURE	MAINTENANCE PERFORMED	FTP RESULTS
60839	HC & CO	1st: Adjusted Carburetor and Idle Speed	HC and CO reduced, but still above Federal Standards.
		2nd: Replaced Carburetor and repaired heated air intake.	HC and CO significantly reduced (meets Federal Standards).
60840	HC & CO	Adjusted Carburetor and replaced three spark plugs.	HC and CO significantly reduced (meets Federal Standards).
60841	CO	1st: Adjusted Carburetor, replaced spark plugs, distributor cap and rotor.	CO reduced, but still slightly above Federal Standards.
		2nd: Re-set Carburetor metering rods.	HC and CO reduced (meets Federal Standards).
60842	HC & CO	Adjusted Carburetor, Idle Speed and Timing.	HC and CO significantly reduced, but HC still above Federal Standards.
60846	HC & CO	Adjusted Carburetor	HC and CO significantly reduced (meets Federal Standards).
60850	CO	Adjusted Carburetor and dwell Note: Suspect bad injector or pump plate (unable to repair)	CO significantly reduced, but HC above Federal Standards.
80805	HC & CO	1st: Adjusted Carburetor	HC and CO significantly reduced (meets Federal Standards).
		2nd: Re-set timing to specification.	No improvement.
80806	HC & CO	Adjusted Carburetor	HC and CO reduced, but still above Federal Standards.
80821	HC & CO	Adjusted Carburetor	HC and CO significantly reduced, but still slightly above Federal Standards.
80832	HC & CO	Adjusted Carburetor	HC and CO significantly reduced (meets Federal Standards).

TABLE 5.9-7 MAINTENANCE AND RESULTS (CONT'D)

EPA NO.	DEQ FAILURE	MAINTENANCE PERFORMED	FTP RESULTS
80838	HC & CO	Adjusted Carburetor	HC and CO significantly reduced (meets Federal Standards).
80844	HC & CO	1st: Adjusted Carburetor Note: Vehicle met Federal Standards prior to repair. 2nd phase of restorative maintenance was performed because HC @ 2500 rpm was high (610 ppm)	No improvement
		2nd: Replaced spark plugs, distributor cap and rotor.	HC and CO reduced.
80845	CO	Adjusted Carburetor	HC and CO significantly reduced (meets Federal Standards).
80848	HC & CO	Adjusted Carburetor	HC and CO significantly reduced (meets Federal Standards).
80851	HC & CO	Adjusted Carburetor	HC and CO reduced, but still slightly above Federal Standards.

TABLE 5.9-8 PROPANE GAIN CHECK

EPA NO	INITIAL TEST NEUTRAL	INITIAL TEST DRIVE	1ST REPAIR NEUTRAL	1ST REPAIR DRIVE
60805	DEC	DEC	100	40
60809	20	DEC	60	10
60810	DEC	DEC	150	30
60812	DEC	DEC	30	DEC
60814	DEC	DEC	50	10
60815	50	DEC	50	DEC
60816	DEC	DEC	50	10
60817	DEC	DEC	290	120
60819	DEC	N/A	110	N/A
60820	30	DEC	180	50
60822	10	DEC	160	70
60824	DEC	DEC	260	100
60826	80	DEC	30	DEC
60828	DEC	DEC	100	30
60829	80	DEC	DEC	DEC
60832	DEC	DEC	120	30
60833	DEC	DEC	150	40
60834	DEC	DEC	100	30
60836	DEC	DEC	70	20
60837	DEC	DEC	50	DEC
60839	DEC	DEC	150	60
60840	DEC	DEC	110	20
60841	DEC	DEC	140	20
60842	DEC	DEC	80	DEC
60846	DEC	DEC	60	10
60850	DEC	N/A	DEC	N/A
80805	30	10	80	40
80806	50	DEC	30	DEC
80821	DEC	DEC	70	DEC
80832	DEC	DEC	70	DEC
80838	DEC	DEC	70	10
80844	20	DEC	100	30
80845	DEC	N/A	180	N/A
80848	30	DEC	150	10
80851	DEC	DEC	50	20

N/A = Not Applicable

DEC = Decrease

5.10 TEST GROUP NO. 9 - VANCOUVER VS PORTLAND VEHICLE EMISSIONS

5.10.1 SUMMARY

The intention of this test group was to evaluate exhaust emissions from vehicles in Portland, Oregon which are subject to a state inspection and maintenance (I/M) program with those in Vancouver, Washington, which are not subject to I/M.

Fifty 1976 and fifty 1978 model year vehicles were recruited from Vancouver and tested. Matching vehicles were then recruited from Portland and tested. A "match" consisted of having the same make, engine size, transmission type, fuel system, and odometer within 5,000 miles.

The testing on each vehicle consisted of an Idle Test, FTP, Highway Fuel Economy Test (HFET), 50 MPH Cruise Test, Two Mode Test, three Four Mode Idle Tests, Propane Gain Checks and a complete diagnostic check. The Four Mode Idle Tests were performed 1) in the as-received condition, 2) using gasohol fuel, and 3) with one spark plug disconnected.

Comparison of the FTP emissions of the 1976 model year vehicles showed significant differences in HC and CO between the Portland fleet and the Vancouver fleet. The Vancouver fleet average HC was 36% higher than the Portland fleet average. Vancouver fleet average CO was 28% higher than the Portland fleet average. However, Vancouver fleet average NOx was 11% lower than Portland. There was no significant difference in the fleet average FTP fuel economy between the two fleets. Comparison of the two fleets for the 1978 model year vehicles showed a negligible difference. Fleet average FTP results are as follows:

1976 MODEL YEAR FTP RESULTS

	HC	CO	NOx	MPG
Portland:	1.88gpm	24.0gpm	3.25gpm	15.8
Vancouver:	2.56gpm	30.7gpm	2.90gpm	15.9
% Difference:	+ 36%	+ 28%	- 11%	+0.6%

1978 MODEL YEAR FTP RESULTS

	HC	CO	NOx	MPG
Portland:	1.30gpm	15.3gpm	2.41gpm	18.0
Vancouver:	1.33gpm	15.1gpm	2.45gpm	17.9
% Difference:	+2.3%	-1.3%	+1.7%	-0.6%

Past programs conducted in Portland comparing areas with and without I/M showed a definite reduction of emissions in the area having I/M (Ref. EPA-460/3-79-003, Portland Study Element II-I/M Effectiveness Study). The reason for no significant difference between the 1978 Portland fleet and the 1978 Vancouver fleet is not known; however, the following points should be considered:

- The effect of Vancouver's close proximity to Portland. (DEQ personnel had argued against the use of Vancouver as the source of a control group when the Element II I/M Effectiveness Study was being planned. It was known that Vancouver cars were being taken voluntarily through the DEQ inspection lanes. DEQ personnel thought that this would have an effect on the state of repair and emissions levels of the Vancouver cars, making them similar to Portland cars. Eugene, Oregon was the city ultimately selected as the source for the control group.)

- It is not known how many of the Vancouver vehicles may have been purchased in Portland dealerships (where vehicle emissions are a factor).

- The sample size of 50 may not be large enough for a statistically relevant comparison.

- Element II cars were of 1972 through 1977 model years. Cars of 1978 model year are generally less susceptible to tampering and maladjustment.

5.10.2 VEHICLE SELECTION

The types of vehicles and quantities of each type to be evaluated for this test group were specified by EPA. Fifty-four (54) different year, make, transmission and engine configurations were selected with a total of 100 vehicles required from Vancouver, Washington and 100 matching vehicles required from Portland, Oregon. The configurations selected and quantity for each were as follows:

1976 Model Year

Make	Engine	Trans	Qty
AMC	258-1V	Auto	2
Buick	350-4V	Auto	2
Cad	500-4V	Auto	2
Chev	85-1V	Manual	1
Chev	250-1V	Auto	1
Chev	305-2V	Auto	3
Chev	350-2V	Auto	4
Chev	400-4V	Auto	2
Olds	260-2V	Auto	1
Olds	350-4V	Auto	4
Pont	350-2V	Auto	2
Pont	400-2V	Auto	1
Ford	140-2V	Auto	1
Ford	140-2V	Manual	1
Ford	250-1V	Auto	2
Ford	302-2V	Auto	3
Ford	351-2V	Auto	4
Chrys	225-1V	Auto	3
Chrys	318-2V	Auto	3
Datsun	85-2V	Manual	2
Honda	91-3V	Manual	1
Toyota	97-2V	Manual	3
Volks	97-FI	Manual	2
		TOTAL:	50

1978 Model Year

Make	Engine	Trans	Qty
AMC	258-2V	Auto	1
Buick	231-2V	Auto	2
Buick	350-4V	Auto	1
Buick	403-4V	Auto	1
Cad	425-4V	Auto	2
Chev	98-1V	Manual	1
Chev	151-2V	Auto	1
Chev	200-2V	Auto	1
Chev	250-1V	Auto	1
Chev	305-2V	Auto	5
Chev	350-4V	Auto	2
Olds	260-2V	Auto	2
Olds	350-4V	Auto	2
Pont	231-2V	Auto	1
Pont	301-2V	Auto	2
Pont	305-2V	Auto	1
Pont	400-4V	Auto	1
Ford	98-2V	Manual	1
Ford	140-2V	Manual	2
Ford	171-2V	Manual	1
Ford	250-1V	Auto	2
Ford	302-2V	Auto	3
Ford	351-2V	Auto	2
Ford	460-4V	Auto	1
Chrys	105-2V	Auto	1
Chrys	225-2V	Auto	2
Chrys	318-2V	Auto	2
Datsun	85-2V	Manual	2
Honda	91-3V	Manual	1
Toyota	97-2V	Manual	2
Volks	89-FI	Manual	1
		TOTAL:	50

A computer tape of 1976 and 1978 vehicles registered in Clark County, Washington (Vancouver) was obtained from the Washington Department of Licensing. Utilizing the make and vehicle identification number (VIN) codes, a search was made of this tape to determine the names and addresses of the owners of the desired vehicles.

The requirement for selection of the 100 Portland vehicles was to match the recruited Vancouver vehicles. A "match" consisted of having the same make, engine size, transmission type, fuel system, and odometer within 5,000 miles. A computer tape of vehicle registration information was obtained from Oregon Motor Vehicles Division (MVD) for the selection.

5.10.3 VEHICLE RECRUITMENT

To aid in the Vancouver recruitment process a temporary office was established at 6401 East Mill Plain Road, Vancouver. This office, which was located eleven miles from the HTS test facility, made the exchange of vehicles more convenient for the participants and thereby enhanced the recruitment. A listing of the vehicles recruited from Vancouver is provided on Table 5.10.1.

The Portland recruitment effort turned out to be a rigorous task. The greatest difficulty encountered was in obtaining volunteer participants whose vehicles had odometer readings within 5,000 miles of the Vancouver matching vehicle. Relief on this requirement was provided by the EPA Project Officer on a case-by-case basis. A listing of the vehicles recruited in the Portland area is provided on Table 5.10.2.

The match matrix for the 200 selected vehicles is shown on Table 5.10.3. The fleet average odometer readings were as follows:

	Vancouver	Portland
1976 models	53650	55169
1978 models	32705	33176
TOTAL FLEET:	43178	44173

All of the Portland vehicles recruited had received their last official DEQ inspection test within the last 12 months, the actual time periods being as follows:

Time Since Inspection	Quantity
0 - 2 months	20
2 - 4 months	13
4 - 6 months	20
6 - 8 months	16
8 - 10 months	14
10 - 12 months	17

As shown above the distribution by time since the last DEQ inspection indicates that the Portland recruitment was well balanced. Therefore the emission levels from this sample should reflect the status of vehicles in an I/M program which requires annual inspections.

The incentives for recruitment included a U.S. Savings Bond (cash value $37.50), the use of a late model loan car, and a full tank of gas upon return of the participant's vehicle.

The legend for Tables 5.10.1 and 5.10.2 is as follows:

EPA NO. - First digit represents model year
CID - Cubic Inch Displacement
FS - Fuel Metering System
C - No. of Cylinders
IW - Inertia Weight
T - Transmission (1=Manual, 2=Automatic)
AS - Air System (1=Yes, 2=No, 3=Gulp Valve)
CC - Catalytic Converter (1=Yes, 2=No)
EG - EGR System (1=Yes, 2=No)
AC - Air Conditioning (1=Yes, 2=No)
EI - Electronic Ignition (1=Yes, 2=No)

TABLE 5.10-1 VEH IDENT INFORMATION (VANCOUVER FLEET)

EPA NO	VEH IDENT NO	MAKE	MODEL	CID	FS	C	IW	T	AS	CC	EG	AC	EI
60801	TE37568018	TOYOT	COROL	97	2V	4	2500	1	2	2	2	2	2
60802	1X69D6L117973	CHEV	NOVA	250	1V	6	4000	2	2	1	1	1	1
60803	1X17Q6L141680	CHEV	NOVA	305	2V	8	4000	2	2	1	1	2	1
60804	WBA2019851	HONDA	CVCC	91	3V	4	2000	1	2	2	2	2	2
60805	HH45G6B350179	PLYM	VOLAR	318	2V	8	4000	2	2	1	1	2	1
60806	3362182792	VOLKS	DASHR	97	FI	4	2500	1	2	2	2	2	1
60807	1B08I6Y140178	CHEV	CHEVE	85	1V	4	2250	1	2	1	1	2	1
60808	6W82L104561	FORD	GRANA	250	1V	6	4000	2	1	1	1	1	1
60809	1H57V6Z483314	CHEV	MONTE	350	2V	8	4500	2	2	1	1	1	1
60810	2G37M6P334378	PONT	LEMAN	350	2V	8	4500	2	2	1	1	1	1
60811	6D47S6D275917	CAD	DEVLE	500	4V	8	5500	2	2	1	1	1	1
60812	2G37M6P199912	PONT	LEMAN	350	2V	8	4500	2	2	1	1	1	1
60813	3J57R6H189423	OLDS	CUTLA	350	4V	8	5000	2	2	1	1	1	1
60814	3J57R6R211062	OLDS	CUTLA	350	4V	8	5000	2	2	1	1	1	1
60815	1D29V62422090	CHEV	MALIB	350	2V	8	4500	2	2	1	1	1	1
60816	3J57R6M212555	OLDS	CUTLA	350	4V	8	5000	2	2	1	1	1	1
60817	4J57J6Z119775	BUICK	REGAL	350	4V	8	5000	2	2	1	1	1	1
60818	6H31H113786	FORD	TORIN	351	2V	8	4500	2	1	1	1	1	1
60819	TE51526628	TOYOT	COROL	97	2V	4	2500	1	2	2	2	2	2
60820	A6C667A117172	AMC	PACER	258	1V	6	3000	2	1	2	1	2	1
60821	1N39U6J246594	CHEV	CAPRI	400	4V	8	5000	2	2	1	1	1	1
60822	HL45C6B264975	PLYM	VOLAR	225	1V	6	4000	2	2	1	1	1	1
60823	NH41C6F287352	DODGE	ASPEN	225	1V	6	4000	2	2	1	1	1	1
60824	HH45G6B416301	PLYM	VOLAR	318	2V	8	4000	2	2	1	1	1	1
60825	6W82F139642	FORD	GRANA	302	2V	8	4000	2	1	1	1	1	1
60826	3J35R6R107191	OLDS	CUTLA	350	4V	8	5000	2	2	1	1	1	1
60827	6X12Y202445	FORD	PINTO	140	2V	4	3000	2	1	1	1	2	1
60828	4J57J6Z115127	BUICK	REGAL	350	4V	8	5000	2	2	1	1	1	1
60829	6H30H101057	FORD	TORIN	351	2V	8	4500	2	1	1	1	1	1
60830	6W83F226427	FORD	GRANA	302	2V	8	4000	2	1	1	1	1	1
60831	6R11Y158385	FORD	PINTO	140	2V	4	3000	1	1	1	1	2	1
60832	HH41C6F241577	PLYM	VOLAR	225	1V	6	4000	2	2	1	1	2	1
60833	6H31H200494	FORD	TORIN	351	2V	8	4500	2	1	1	1	1	1
60834	HP41G6F292895	PLYM	VOLAR	318	2V	8	4000	2	2	1	1	2	1
60835	1H57V6Z426015	CHEV	MONTE	350	2V	8	4500	2	2	1	1	1	1
60836	6D47S6Q111380	CAD	DEVLE	500	4V	8	5500	2	2	1	1	1	1
60837	1H57V6R951181	CHEV	MONTE	350	2V	8	4500	2	2	1	1	1	1
60838	A6A667A287368	AMC	PACER	258	1V	6	3000	2	1	2	1	2	1
60839	2L69N6P327785	PONT	CATAL	400	2V	8	5000	2	2	1	1	1	1
60840	1H57U6Z449559	CHEV	MONTE	400	4V	8	4500	2	2	1	1	1	1
60841	6W82L230045	FORD	GRANA	250	1V	6	4000	2	1	1	1	1	1
60843	HLB210851947	DATSU	210	85	2V	4	2250	1	1	2	1	2	2
60844	3E27F6L113923	OLDS	OMEGA	260	2V	8	4500	2	2	1	1	1	1
60845	6W84F264496	FORD	GRANA	302	2V	8	4000	2	1	1	1	1	1
60846	1Y27Q6K117301	CHEV	NOVA	305	2V	8	4000	2	2	1	1	1	1
60847	TE38058000	TOYOT	COROL	97	2V	4	2500	1	1	2	2	1	2
60848	HLB210720083	DATSU	210	85	2V	4	2250	1	1	2	1	2	2
60849	1X27Q6L121334	CHEV	NOVA	305	2V	8	4000	2	2	1	1	2	1
60850	3262174637	VOLKS	DASHR	97	FI	4	2500	1	2	2	2	2	2
60851	6H43H137946	FORD	TORIN	351	2V	8	4500	2	1	1	1	1	1

TABLE 5.10-1 VEH IDENT INFORMATION (VANCOUVER FLEET) (CONT'D)

EPA NO	VEH IDENT NO	MAKE	MODEL	CID	FS	C	IW	T	AS	CC	EG	AC	EI
80801	TE38138550	TOYOT	COROL	97	2V	4	2500	1	2	1	1	2	1
80802	2U87U8L154317	PONT	FIREB	305	2V	8	4000	2	2	1	1	2	1
80803	8K35Y527292	MERC	ZEPHY	140	2V	4	3000	1	1	1	1	2	1
80804	NL29D8B272270	DODGE	ASPEN	225	2V	6	3500	2	3	1	1	2	1
80805	3N69R8M169387	OLDS	DELTA	350	4V	8	4000	2	2	1	1	1	1
80806	1Y27D8W154314	CHEV	NOVA	250	1V	6	4000	2	2	1	1	2	1
80807	2J37Y8P569618	PONT	GR PX	301	2V	8	3500	2	2	1	1	2	1
80808	8A31H227165	FORD	LTD	351	2V	8	4500	2	2	1	1	1	1
80809	WBA4001696	HONDA	CVCC	91	3V	4	2250	1	1	2	2	2	2
80810	1Y69U8W209949	CHEV	NOVA	305	2V	8	4000	2	2	1	1	1	1
80811	4E09A8Z110757	BUICK	CENTY	231	2V	6	3500	2	2	1	1	1	1
80812	1Y69U8W177032	CHEV	NOVA	305	2V	8	4000	2	2	1	1	1	1
80813	1W35M82445722	CHEV	MALIB	200	2V	6	3500	2	2	1	1	2	1
80814	GCFBTK30013	FORD	FIEST	98	2V	4	2000	1	1	1	1	2	1
80815	8X94F216009	FORD	FAIRM	302	2V	8	3500	2	1	1	1	1	1
80816	1B08J8Y179977	CHEV	CHEVE	98	1V	4	2250	1	2	1	1	2	1
80817	1Q87L8L617199	CHEV	CAMAR	350	4V	8	4000	2	2	1	1	1	1
80818	6D69S8Q221067	CAD	DEVLE	425	4V	8	5000	2	2	1	1	1	1
80819	3N37F8C120528	OLDS	DELTA	260	2V	8	4000	2	2	1	1	1	1
80820	4P37K8H535761	BUICK	LESAB	403	4V	8	4500	2	2	1	1	1	1
80821	HL29D8B170005	PLYM	VOLAR	225	2V	6	3500	2	3	1	1	1	1
80822	1W27U8Z458758	CHEV	MALIB	305	2V	8	3500	2	2	1	1	1	1
80823	2D27A8P595977	PONT	LEMAN	231	2V	6	3500	2	2	1	1	2	1
80824	TE38113080	TOYOT	COROL	97	2V	4	2500	1	2	1	1	2	1
80825	3N69R8C110238	OLDS	DELTA	350	4V	8	4000	2	2	1	1	1	1
80826	6D69S8Q256186	CAD	DEVLE	425	4V	8	5000	2	2	1	1	1	1
80827	8Z65A554534	MERC	MARQU	460	4V	8	5000	2	1	1	1	1	1
80828	8W81L113050	FORD	GRANA	250	1V	6	3500	2	1	1	1	1	1
80829	RH41G8A178677	PLYM	FURY	318	2V	8	4500	2	3	1	1	1	1
80830	2J37Y8A174371	PONT	GR PX	301	2V	8	3500	2	2	1	1	1	1
80831	8J87H106112	FORD	TBIRD	351	2V	8	4500	2	2	1	1	1	1
80832	8W82F102991	FORD	GRANA	302	2V	8	4500	2	1	1	1	1	1
80833	1N69L8J257902	CHEV	CAPRI	350	4V	8	4000	2	2	1	1	1	1
80834	3M47F8M478200	OLDS	CUTLA	260	2V	8	3500	2	2	1	1	1	1
80835	HL29G8B239265	PLYM	VOLAR	318	2V	8	4000	2	3	1	1	2	1
80836	4P37X8H594260	BUICK	LESAB	350	4V	8	4500	2	2	1	1	1	1
80837	1S87U8L540926	CHEV	CAMAR	305	2V	8	4000	2	2	1	1	1	1
80839	1M15V8U124751	CHEV	MONZA	151	2V	4	3000	2	2	1	1	2	1
80840	2Q69Z8P206728	PONT	BONNE	400	4V	8	4500	2	2	1	1	1	1
80841	A8A687C377052	AMC	PACER	258	2V	6	3500	2	1	1	1	2	1
80842	8F03Z123934	FORD	MUSTA	171	2V	6	3500	1	1	1	1	1	1
80843	HLB210252614	DATSU	210	85	2V	4	2250	1	1	2	1	2	1
80844	8W82L105767	FORD	GRANA	250	1V	6	3500	2	1	1	1	2	1
80845	1783070610	VOLKS	RABBI	89	FI	4	2250	1	2	2	1	2	1
80846	HLB210260970	DATSU	210	85	2V	4	2250	1	1	2	1	2	1
80847	8W82F105778	FORD	GRANA	302	2V	8	4500	2	1	1	1	2	1
80848	4L09A8G163741	BUICK	CENTY	231	2V	6	3500	2	2	1	1	2	1
80849	ZL44A8D178898	DODGE	OMNI	105	2V	4	2500	2	1	1	1	2	1
80850	8R12Y102235	FORD	PINTO	140	2V	4	3000	1	1	1	1	2	1
80851	1W35U8Z465769	CHEV	MALIB	305	2V	8	4000	2	2	1	1	2	1

TABLE 5.10-2 VEH IDENT INFORMATION (PORTLAND FLEET)

EPA NO	VEH IDENT NO	MAKE	MODEL	CID	FS	C	IW	T	AS	CC	EG	AC	EI
60901	3J29R6M154363	OLDS	CUTLA	350	4V	8	5000	2	2	1	1	1	1
60902	1H57V6Z238540	CHEV	MONTE	350	2V	8	4500	2	2	1	1	1	1
60903	2G37M6P152327	PONT	LEMAN	350	2V	8	4500	2	2	1	1	1	1
60904	HL45G6B313144	PLYM	VOLAR	318	2V	8	4000	2	2	1	1	1	1
60905	3J57R6M344417	OLDS	CUTLA	350	4V	8	5000	2	2	1	1	2	1
60906	6D47S6Q299638	CAD	DEVLE	500	4V	8	5500	2	2	1	1	1	1
60907	HH45C6B145665	PLYM	VOLAR	225	1V	6	4000	2	2	1	1	2	1
60908	3B27F6L103998	OLDS	OMEGA	260	2V	8	4500	2	2	1	1	2	1
60909	6W81F142470	FORD	GRANA	302	2V	8	4000	2	1	1	1	1	1
60910	HLB210710950	DATSU	210	85	2V	4	2250	1	1	2	1	2	2
60911	HLB210840764	DATSU	210	85	2V	4	2250	1	1	2	1	2	2
60912	HP41G6F211101	PLYM	VOLAR	318	2V	8	4000	2	2	1	1	1	1
60913	1Y69Q6L121066	CHEV	NOVA	305	2V	8	4000	2	2	1	1	2	1
60915	1Y27Q6L129747	CHEV	NOVA	305	2V	8	4000	2	2	1	1	2	1
60917	1N39U6J245390	CHEV	CAPRI	400	4V	8	5000	2	2	1	1	1	1
60919	2L57N6P341248	PONT	CATAL	400	2V	8	5000	2	2	1	1	1	1
60920	6H30H108683	FORD	TORIN	351	2V	8	4500	2	1	1	1	1	1
60921	1X27D6L154457	CHEV	NOVA	250	1V	6	4000	2	2	1	1	2	1
60923	6G30H231588	FORD	TORIN	351	2V	8	4500	2	1	1	1	1	1
60924	A6C667A110507	AMC	PACER	258	1V	6	3000	2	2	2	1	2	1
60925	1H57V6Z416538	CHEV	MONTE	350	2V	8	4500	2	2	1	1	1	1
60926	3J29R6M364532	OLDS	CUTLA	350	4V	8	5000	2	2	1	1	1	1
60927	HP41C6F165667	PLYM	VOLAR	225	2V	6	4000	2	2	1	1	1	1
60928	2G29M6P102806	PONT	LEMAN	350	2V	8	4500	2	2	1	1	1	1
60929	1H57V6Z474780	CHEV	MONTE	350	2V	8	4500	2	2	1	1	1	1
60930	6W82F226411	FORD	GRANA	302	2V	8	4000	2	1	1	1	1	1
60931	3262043546	VOLKS	DASHR	97	FI	4	2500	1	2	2	2	2	2
60932	NH41C6F162359	DODGE	ASPEN	225	1V	6	4000	2	3	1	1	1	1
60933	HH45G6B399063	PLYM	VOLAR	318	2V	8	4000	2	2	1	1	2	1
60934	TE51517705	TOYOT	COROL	97	2V	4	2500	1	2	2	2	2	2
60935	4J57J6Z101262	BUICK	REGAL	350	4V	8	5000	2	2	1	1	1	1
60936	1H57V6Z419186	CHEV	MONTE	350	2V	8	4500	2	2	1	1	1	1
60937	6D49S6E620957	CAD	DEVLE	500	4V	8	5500	2	2	1	1	1	1
60938	6H31H126032	FORD	TORIN	351	2V	8	4500	2	1	1	1	1	1
60939	6G30H233736	FORD	TORIN	351	2V	8	4500	2	1	1	1	1	1
60940	TE51519340	TOYOT	COROL	97	2V	4	2500	1	1	2	2	2	2
60941	1B08I6Y100467	CHEV	CHEVE	85	1V	4	2500	1	2	1	1	2	1
60942	TE31178021	TOYOT	COROL	97	2V	4	2500	1	1	2	2	2	2
60943	4J57J6Z121240	BUICK	REGAL	350	4V	8	5000	2	2	1	1	1	1
60944	6X12Y207083	FORD	PINTO	140	2V	4	3000	1	1	1	1	2	1
60945	6X11Y178680	FORD	PINTO	140	2V	4	3000	2	1	1	1	2	1
60946	3J29R6M164564	OLDS	CUTLA	350	4V	8	5000	2	2	1	1	1	1
60947	1N39U6J245994	CHEV	CAPRI	400	4V	8	5000	2	2	1	1	1	1
60948	WBA2028095	HONDA	CVCC	91	3V	4	2000	1	2	2	2	2	2
60949	1X17Q6L122229	CHEV	NOVA	305	2V	8	4000	2	2	1	1	1	1
60950	6W81F115599	FORD	GRANA	302	2V	8	4000	2	1	1	1	1	1
60951	3262151793	VOLKS	DASHR	97	FI	4	2500	1	2	2	2	2	2
60952	6W81L181155	FORD	GRANA	250	1V	6	4000	2	1	1	1	2	1
60953	6W82L168768	FORD	GRANA	250	1V	6	4000	2	1	1	1	2	1
60954	A6A667A147134	AMC	PACER	258	1V	6	3000	2	2	2	1	2	1

TABLE 5.10-2 VEH IDENT INFORMATION (PORTLAND FLEET) CONT'D

EPA NO	VEH IDENT NO	MAKE	MODEL	CID	FS	C	IW	T	AS	CC	EG	AC	EI
80901	8K35Y528816	MERC	ZEPHY	140	2V	4	3000	1	1	1	1	2	1
80902	8K35Y529086	MERC	ZEPHY	140	2V	4	3000	1	1	1	1	2	1
80903	1W35U8K554974	CHEV	MALIB	305	2V	8	4000	2	2	1	1	1	1
80904	4F37X8X100194	BUICK	LESAB	350	4V	8	4500	2	2	1	1	1	1
80906	4H35A8Z146651	BUICK	CENTY	231	2V	6	4000	2	2	1	1	1	1
80907	1S87U8L606114	CHEV	CAMAR	305	2V	8	4000	2	2	1	1	1	1
80908	8W82F128050	FORD	GRANA	302	2V	8	4500	2	1	1	1	2	1
80909	1Q87L8L597906	CHEV	CAMAR	350	4V	8	4000	2	2	1	1	2	1
80910	ML44A8D235515	PLYM	HORIZ	105	2V	4	2500	2	1	1	1	1	1
80911	3M47F8M477394	OLDS	CUTLA	260	2V	8	3500	2	2	1	1	1	1
80912	TE38142292	TOYOT	COROL	97	2V	4	2500	1	2	1	1	2	1
80913	HL45088258871	PLYM	VOLAR	225	2V	6	3500	2	3	1	1	1	1
80914	1W27U8K497027	CHEV	MALIB	305	2V	8	3500	2	2	1	1	1	1
80915	8W81L215627	FORD	GRANA	250	1V	6	3500	2	1	1	1	2	1
80916	1W27U8K536822	CHEV	MALIB	305	2V	8	3500	2	2	1	1	1	1
80919	4Z37K8H548862	BUICK	RIVIE	403	4V	8	4500	2	2	1	1	1	1
80920	1Q87L8L624828	CHEV	CAMAR	350	4V	8	4000	2	2	1	1	2	1
80921	A8A667C306281	AMC	PACER	258	2V	6	3500	2	1	1	1	1	1
80923	2J37Y8A175131	PONT	GR PR	301	2V	8	3500	2	2	1	1	1	1
80924	HL45G8B295122	PLYM	VOLAR	318	2V	8	4000	2	3	1	1	1	1
80925	2S87U8L104213	PONT	FIREB	305	2V	8	4000	2	2	1	1	2	1
80926	6D47S8Q162219	CAD	DEVLE	425	4V	8	5000	2	2	1	1	1	1
80927	HL29D8B165505	PLYM	VOLAR	225	2V	6	3500	2	3	1	1	2	1
80928	HLB210992248	DATSU	210	85	2V	4	2250	1	1	2	1	2	1
80929	1Y69D8T102854	CHEV	NOVA	250	1V	6	4000	2	2	1	1	1	1
80930	1783088100	VOLKS	RABBI	89	FI	4	2250	1	2	2	1	2	2
80931	2Q69Z8X110032	PONT	BONNE	400	4V	8	4500	2	2	1	1	1	1
80932	2J37Y8F647617	PONT	GR PR	301	2V	8	3500	2	2	1	1	1	1
80933	6D69S8Q153583	CAD	DEVLE	425	4V	8	5000	2	2	1	1	1	1
80934	8Z65A515792	MERC	MARQU	460	4V	8	5000	2	1	1	1	1	1
80935	3N37R8C108574	OLDS	DELTA	350	4V	8	4000	2	2	1	1	1	1
80936	WBA4000979	HONDA	CVCC	91	3V	4	2250	1	1	2	2	2	2
80937	8W82F133961	FORD	GRANA	302	2V	8	4500	2	1	1	1	1	1
80938	TE31295583	TOYOT	COROL	97	2V	4	2500	1	2	1	1	2	1
80939	HL45G8B206332	PLYM	VOLAR	318	2V	8	4000	2	3	1	1	1	1
80940	8X94F218708	FORD	FAIRM	302	2V	8	3500	2	1	1	1	1	1
80941	3M47F8M496515	OLDS	CUTLA	260	2V	6	3500	2	2	1	1	1	1
80942	HLB210355937	DATSU	210	85	2V	4	2250	1	1	2	1	2	1
80943	2D35A8B132274	PONT	LEMAN	231	2V	6	3500	2	2	1	1	2	1
80944	1B08E8Y128750	CHEV	CHEVE	98	1V	4	2250	1	2	1	1	2	1
80947	8J87H140016	FORD	TBIRD	351	2V	8	4500	2	2	1	1	1	1
80948	4H09A8H186760	BUICK	CENTY	231	2V	6	3500	2	2	1	1	1	1
80949	1W27M8K403251	CHEV	MALIB	200	2V	6	3500	2	2	1	1	1	1
80950	1S87U8L500025	CHEV	CAMAR	305	2V	8	4000	2	2	1	1	1	1
80951	GCFDTC89820	FORD	FIEST	98	2V	4	2000	1	1	1	1	2	1
80952	8W81L115150	FORD	GRANA	250	1V	6	3500	2	2	1	1	2	1
80953	3N69R8C107294	OLDS	DELTA	350	4V	8	4000	2	2	1	1	1	1
80954	8J87H148533	FORD	TBIRD	351	2V	8	4500	2	1	1	1	1	1
80955	1M07V8U207453	CHEV	MONZA	151	2V	4	3000	2	2	1	1	2	1
80956	8F032167184	FORD	MUSTA	171	2V	6	3500	1	1	1	1	2	1

TABLE 5.10-3 VANCOUVER VS PORTLAND MATCH MATRIX

			VANCOUVER			PORTLAND		
YR	MAKE	ENGINE	EPA NO.	MODEL	ODOM	EPA NO.	MODEL	ODOM
76	AMC	258-1V	60820	Pacer	55030	60924	Pacer	64384
76	AMC	258-1V	60838	Pacer	32987	60954	Pacer	33278
76	Buick	350-4V	60817	Regal	35722	60943	Regal	39196
76	Buick	350-4V	60828	Regal	39269	60935	Regal	48226
76	Cad	500-4V	60811	DeVille	65654	60906	DeVille	61349
76	Cad	500-4V	60836	DeVille	68756	60937	DeVille	70551
76	Chev	85-1V	60807	Chevette	42802	60941	Chevette	43252
76	Chev	250-1V	60802	Nova	30072	60921	Nova	41825
76	Chev	305-2V	60803	Nova	56247	60915	Nova	48171
76	Chev	305-2V	60846	Nova	69027	60913	Nova	65935
76	Chev	305-2V	60849	Nova	58538	60949	Nova	65260
76	Chev	350-2V	60809	Monte Carlo	40175	60929	Monte Carlo	33550
76	Chev	350-2V	60815	Malibu	85449	60902	Monte Carlo	90768
76	Chev	350-2V	60837	Monte Carlo	76300	60936	Monte Carlo	65430
76	Chev	350-2V	60835	Monte Carlo	69400	60925	Monte Carlo	63817
76	Chev	400-4V	60821	Caprice	46964	60947	Caprice	47963
76	Chev	400-4V	60840	Monte Carlo	60476	60917	Caprice	56702
76	Olds	260-2V	60844	Omega	32581	60908	Omega	25695
76	Olds	350-4V	60813	Cutlass	34730	60946	Cutlass	37999
76	Olds	350-4V	60814	Cutlass	35315	60926	Cutlass	38595
76	Olds	350-4V	60816	Cutlass	79669	60901	Cutlass	85023
76	Olds	350-4V	60826	Cutlass Wag	63657	60905	Cutlass	70133
76	Pont	350-2V	60810	LeMans	22531	60903	LeMans	29230
76	Pont	350-2V	60812	LeMans	44563	60928	LeMans	54128
76	Pont	400-2V	60839	Catalina	43440	60919	Catalina	46615
76	Ford	140-2V	60827	Pinto	45729	60945	Pinto	48250
76	Ford	140-2V	60831	Pinto	83489	60944	Pinto Wag	83057
76	Ford	250-1V	60808	Granada	28836	60953	Granada	21963
76	Ford	250-1V	60841	Granada	71038	60952	Granada	74581
76	Ford	302-2V	60825	Granada	58530	60909	Granada	63559
76	Ford	302-2V	60830	Granada	42202	60950	Granada	36694
76	Ford	302-2V	60845	Granada	49818	60930	Granada	46322
76	Ford	351-2V	60818	Torino	53034	60939	Torino	53726
76	Ford	351-2V	60829	Torino	40495	60920	Torino	51771
76	Ford	351-2V	60833	Torino	67399	60938	Torino	76189
76	Ford	351-2V	60851	Torino Wag	84318	60923	Torino	84556
76	Chrys	225-1V	60822	Volare Wag	50625	60932	Aspen	44522
76	Chrys	225-1V	60823	Aspen	33404	60907	Volare	42782
76	Chrys	225-1V	60832	Volare	66518	60927	Volare	77987
76	Chrys	318-2V	60805	Volare Wag	40431	60912	Volare	48957
76	Chrys	318-2V	60824	Volare Wag	71048	60904	Volare Wag	82173
76	Chrys	318-2V	60834	Volare	62320	60933	Volare	55584

TABLE 5.10-3 VANCOUVER VS PORTLAND MATCH MATRIX (CONT'D)

			VANCOUVER			PORTLAND		
YR	MAKE	ENGINE	EPA NO.	MODEL	ODOM	EPA NO.	MODEL	ODOM
76	Datsun	85-2V	60843	210	59015	60911	210	47800
76	Datsun	85-2V	60848	210	41783	60910	210	45077
76	Honda	91-3V	60804	CVCC	54466	60948	CVCC	49127
76	Toyota	97-2V	60801	Corolla	61754	60942	Corolla	57023
76	Toyota	97-2V	60819	Corolla	75287	60940	Corolla	73085
76	Toyota	97-2V	60847	Corolla	49134	60934	Corolla	51795
76	Volks	97-FI	60806	Dasher Wag	64798	60931	Dasher	71641
76	Volks	97-FI	60850	Dasher	37681	60951	Dasher	43139
78	AMC	258-2V	80841	Pacer	17793	80921	Pacer	24827
78	Buick	231-2V	80811	Century	29260	80906	Century Wag	31507
78	Buick	231-2V	80848	Century	27247	80948	Century	27649
78	Buick	350-4V	80836	LeSabre	19025	80904	LeSabre	21088
78	Buick	403-4V	80820	LeSabre	25471	80919	Riviera	33339
78	Cad	425-4V	80818	DeVille	19005	80926	Cadillac	21103
78	Cad	425-4V	80826	DeVille	26094	80933	Cadillac	24275
78	Chev	98-1V	80816	Chevette	39839	80944	Chevette	47337
78	Chev	151-2V	80839	Monza	19389	80955	Monza	14472
78	Chev	200-2V	80813	Malibu Wag	44534	80949	Malibu	43923
78	Chev	250-1V	80806	Nova	42537	80929	Nova	37351
78	Chev	305-2V	80810	Nova	27357	80903	Malibu Wag	26049
78	Chev	305-2V	80812	Nova	15532	80916	Malibu	15318
78	Chev	305-2V	80822	Malibu	37966	80914	Malibu	37511
78	Chev	305-2V	80837	Camaro	37274	80950	Camaro	38217
78	Chev	305-2V	80851	Malibu Wag	17396	80907	Camaro	17636
78	Chev	350-4V	80817	Camaro	20409	80909	Camaro	30794
78	Chev	350-4V	80833	Caprice	23646	80920	Camaro	27358
78	Olds	260-2V	80819	Delta 88	40787	80911	Cutlass	48231
78	Olds	260-2V	80834	Cutlass	20047	80941	Cutlass	19236
78	Olds	350-4V	80805	Delta 88	60245	80953	Delta 88	62514
78	Olds	350-4V	80825	Delta 88	62704	80935	Delta 88	64490
78	Pont	231-2V	80823	LeMans	37900	80943	LeMans	35534
78	Pont	301-2V	80807	Gran Prix	33826	80923	Gran Prix	45422
78	Pont	301-2V	80830	Gran Prix	8886	80932	Gran Prix	12695
78	Pont	305-2V	80802	Firebird	18190	80925	Firebird	21890
78	Pont	400-4V	80840	Bonneville	40736	80931	Bonneville	48004

TABLE 5.10-3 VANCOUVER VS PORTLAND MATCH MATRIX (CONT'D)

			VANCOUVER			PORTLAND		
YR	MAKE	ENGINE	EPA NO.	MODEL	ODOM	EPA NO.	MODEL	ODOM
78	Ford	98-2V	80814	Fiesta	47255	80951	Fiesta	43793
78	Ford	140-2V	80803	Zephyr	34862	80901	Zephyr	32594
78	Ford	140-2V	80850	Pinto Wag	39411	80902	Zephyr	42019
78	Ford	171-2V	80842	Mustang	45088	80956	Mustang	37668
78	Ford	250-1V	80828	Granada	33353	80915	Granada	25899
78	Ford	250-1V	80844	Granada	51156	80952	Granada	45367
78	Ford	302-2V	80815	Fairmont Wag	24878	80940	Fairmont	25953
78	Ford	302-2V	80832	Granada	29552	80908	Granada	32573
78	Ford	302-2V	80847	Granada	19579	80937	Granada	14146
78	Ford	351-2V	80808	LTD	25737	80947	T-Bird	26947
78	Ford	351-2V	80831	T-Bird	48389	80954	T-Bird	41009
78	Ford	460-4V	80827	Marquis	16820	80934	Marquis	21798
78	Chrys	105-2V	80849	Omni	29448	80910	Horizon	24129
78	Chrys	225-2V	80804	Aspen	20233	80927	Volare	23842
78	Chrys	225-2V	80821	Volare	29787	80913	Volare Wag	30102
78	Chrys	318-2V	80829	Fury	32793	80939	Volare Wag	36543
78	Chrys	318-2V	80835	Volare	29979	80924	Volare	21272
78	Datsun	85-2V	80843	210	43115	80928	210	44867
78	Datsun	85-2V	80846	210	21438	80942	210	25633
78	Honda	91-3V	80809	CVCC Wag	48964	80936	CVCC Wag	41176
78	Toyota	97-2V	80801	Corolla	36956	80912	Corolla Wag	31596
78	Toyota	97-2V	80824	Corolla	55087	80938	Corolla	58090
78	Volks	89-FI	80845	Rabbit	58316	80930	Rabbit	53985

5.10.4 TEST PROCEDURES

5.10.4.1 Test Sequence

Each vehicle was tested in accordance with the following sequence of tests:

.Idle Test at DEQ test station (Ref. para. 4.3.1)
.Idle Test at HTS facility (Ref. para. 4.3.1)
.Propane Gain Checks (Ref. para. 4.3.10)
.Federal Test Procedure (FTP)(Ref. para. 4.3.3 and 4.3.4)
.50 MPH Cruise Test (Ref. para. 4.3.8)
.Highway Fuel Economy Test (HFET)(Ref. para. 4.3.6)
.Four Mode Idle Test (Ref. para. 4.3.9)
.Two Mode Test (Ref. para. 4.3.7)
.2nd Propane Gain Check (Ref. para. 4.3.10)
.Four Mode Idle Test with one spark plug disconnected
.Four Mode Idle Test using gasohol fuel
.Diagnostic Inspection (Ref. para. 4.3.2)

The two Propane Gain Checks were performed in three different conditions with the vehicle in neutral gear. The conditions were:

.With PCV valve in place,
.with PCV valve removed from its seat and drawing underhood air,
.with PCV valve in place and the fresh air hose in the induction (PCV) system removed at the air cleaner.

Vehicles with automatic transmissions were also checked in the Drive gear for the above three conditions.

The procedures for the Four Mode Test using gasohol consisted of first draining the vehicle fuel tank as completely as possible, then adding five gallons of gasohol. The vehicle was then pre-conditioned by running the engine at fast idle for five minutes.

5.10.4.2 Shift Speeds

The shift speeds used for vehicles with manual transmissions were 15, 25, and 40 mph except for the Chevettes. The Chevettes were shifted at 10, 25 and 40 mph.

The Toyota Corollas with five speed transmissions were shifted into fifth gear during the HFET at 45 mph.

5.10.4.3 Inertia Weight and Horsepower Settings

The inertia weight and horsepower settings for the FTP and HFET were provided by EPA and are shown on Table 5.10-15 for the Vancouver fleet and Table 5.10-16 for the Portland fleet.

5.10.5 TEST RESULTS

A composite of the FTP and HFET test results which compares the Vancouver and Portland fleets is shown on Table 5.10-4.

The test results for each vehicle are provided on Tables 5.10-5 through Table 5.10-20. The contents of the tables are as follows:

	Vancouver Fleet	Portland Fleet
DEQ & HTS Idle Tests	Table 5.10-5	Table 5.10-6
Two Mode & 50 MPH Cruise Tests	Table 5.10-7	Table 5.10-8
Four Mode Test	Table 5.10-9	Table 5.10-10
Four Mode Test (Spark Plug Disabled)	Table 5.10-11	Table 5.10-12
Four Mode Test (Gasohol)	Table 5.10-13	Table 5.10-14
FTP & HFET Tests	Table 5.10-15	Table 5.10-16
Propane Gain Check	Table 5.10-17	Table 5.10-18
Diagnostic Inspection Results	Table 5.10-19	Table 5.10-20

TABLE 5.10-4

COMPOSITE OF FTP AND HFET RESULTS

	FTP						HFET				
	HC	CO	CO_2	NO_x	NO_{xc}	MPG	HC	CO	CO_2	NO_x	MPG
VANCOUVER (1976 Model Year)											
Average:	2.56gpm	30.73gpm	541.7gpm	3.17gpm	2.90gpm	15.9	0.76gpm	8.16gpm	415.3gpm	3.91	22.4
Std. Dev:	1.86	31.58	133.4	1.39	1.26	4.5	0.82	22.20	109.2	1.75	7.2
VANCOUVER (1978 Model Year)											
Average:	1.33	15.06gpm	496.0gpm	2.65gpm	2.45gpm	17.9	0.26gpm	1.51gpm	354.7gpm	3.13gpm	26.1
Std. Dev:	1.06	12.02	114.4	1.18	1.13	4.5	0.26	2.60	75.3	1.86	6.6
PORTLAND (1976 Model Year)											
Average:	1.88gpm	23.96gpm	559.4gpm	3.60gpm	3.25gpm	15.8	0.56gpm	7.49gpm	426.9gpm	4.28gpm	21.8
Std. Dev:	1.08	22.91	136.0	1.70	1.51	4.7	0.62	22.24	105.3	2.01	7.0
PORTLAND (1978 Model Year)											
Average:	1.30gpm	15.26gpm	494.9gpm	2.67gpm	2.41gpm	18.0	0.31gpm	2.41gpm	361.1gpm	3.14gpm	25.6
Std. Dev:	0.70	12.15	114.4	1.28	1.13	0.33	0.33	3.46	82.8	1.78	6.5

$$\text{Std. Dev.} = \left(\frac{d_1^2 + d_2^2 + \ldots . d_n^2}{n-1}\right)^{\frac{1}{2}}$$

gpm= grams per mile

The legends for the tables are as follows:

Legend for Tables 5.10-5 through 5.10-14

1ST	-	Initial Idle Test
2500	-	High Idle Test (2500 RPM)
2ND	-	Second Idle Test
HC	-	Hydrocarbons in ppm (measurements are in hexane in all readings except for "LAB" readings which are in total hydrocarbons.)
CO	-	Carbon Monoxide in Percent
NO_x	-	Oxides of Nitrogen in ppm
RPM	-	Engine Idle RPM
LAB	-	Laboratory Analyzers
GARAGE	-	EPA-75 Garage Analyzer
STA	-	Status (the three numbers represent the DEQ Pass/Fail status for HC, CO and RPM respectively. 1=Pass, 2=Fail.)

Legend for Tables 5.10-15 and 5.10-16

ODOM	-	Odometer reading
IW	-	Inertia Weight settings
AHP	-	Actual Horsepower settings
HC	-	Hydrocarbon Emissions in grams per mile
CO	-	Carbon Monoxide Emissions in grams per mile
CO_2	-	Carbon Dioxide Emissions in grams per mile
NO_x	-	Oxides of Nitrogen (uncorrected) Emissions in grams per mile
NO_xC	-	Oxides of Nitrogen Emissions corrected for humidity in grams per mile
MPG	-	Miles per gallon calculated by the Carbon Balance Method

Legend for Tables 5.10-17 through 5.10-20

MECH ADV	-	Mechanical Advance	SPEC	-	Specification
TOTAL ADV	-	Total Advance	N/A	-	Not Applicable
MEAS	-	Measured Value	DEC	-	Decrease

TABLE 5.10-5 DEQ & HTS IDLE TEST RESULTS (VANCOUVER FLEET)

	DEQ IDLE TEST									HTS IDLE TEST							
	HC			CO			RPM			HC			CO			RPM	
EPA NO	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND	STA	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND
60801	40	25	95	.9	.2	.8	1000	1000	111	70	20	50	1.0	.4	1.0	960	960
60802	450	255	470	4.8	1.9	4.7			22	480	50	470	4.3	.2	6.9	720	770
60803	245	105	255	2.3	.4	1.7	1150	1200	221	220	90	270	1.8	1.0	2.2	1050	1000
60804	75	45	105	.2	.2	.1	1000	1000	111	120	30	90	.2	.2	.2	890	940
60805	570	105	555	4.4	.3	4.2	750	750	221	560	240	660	4.3	.2	4.8	770	780
60806	100	105	145	3.9	2.3	4.0	1200	1200	121	100	70	110	4.3	2.0	4.6	1130	1130
60807	45	55	55	.3	.0	.1	1300	1300	111	50	40	50	.0	.0	.0	1130	1140
60808	270	105	180	1.0	.6	.0	800	800	111	160	70	130	.0	.3	.0	840	830
60809	235	190	230	3.0	2.4	2.8	975	975	221	240	140	190	1.6	1.4	1.8	930	940
60810	2000	545	2000	8.6	.1	9.0	500	500	221	2160	110	2220	6.8	.0	10.6	470	450
60811	15	30	20	.0	.0	.0	675	675	111	50	30	30	.1	.0	.0	550	730
60812	1000	295	1345	7.9	1.3	7.9	750	750	221	1480	90	1150	7.3	.5	9.5	700	750
60813	40	65	55	.0	.0	.0	625	675	111	130	80	50	.0	.0	.0	650	620
60814	600	1405	805	4.1	.1	4.1	700	700	221	620	190	560	2.7	.0	3.1	720	750
60815	150	105	185	1.2	2.1	1.5	850	900	221	200	120	190	1.2	1.9	1.8	880	910
60816	605	245	540	1.9	.0	2.7	700	700	221	630	250	570	3.6	.0	4.0	710	760
60817	115	65	125	3.8	.8	3.9	800	800	121	160	20	130	3.9	.0	3.9	750	780
60818	75	50	75	.0	.1	.0	1000	1000	111	200	50	80	.0	.1	.0	840	970
60819	365	100	390	6.9	1.6	6.4	900	900	221	360	40	320	6.1	.9	6.0	750	790
60820	255	95	320	3.9	.3	3.6	750	750	221	260	50	260	3.7	.1	3.9	730	710
60821	175	65	155	.0	.0	.0	775	825	111	160	60	130	.0	.0	.0	850	840
60822	175	75	240	2.4	.6	2.2	950	950	121	210	80	190	1.4	.4	1.2	900	900
60823	220	75	200	.1	.2	.2	725	725	111	160	80	100	.0	.5	.0	720	730
60824	380	70	495	3.9	.4	4.4	800	800	221	500	50	570	4.7	.3	4.8	790	840
60825	215	540	130	4.8	.1	.0	850	900	111	70	380	60	.0	.0	.0	960	970
60826	345	705	470	1.9	.4	1.5	900	900	221	570	2080	470	.9	.2	1.0	1000	1010
60827	35	35	55	.0	.1	.0	950	950	111	40	20	20	.0	.0	.0	850	870
60828	150	35	225	5.3	.4	5.6	700	700	221	200	40	200	5.4	.2	5.7	710	720
60829	1285	815	1060	1.0	.0	1.8	1000	1050	221	950	610	1040	.4	.0	.4	980	1020
60830	45	40	95	.0	.0	.0	1400	1400	112	40	70	50	.0	.0	.0	1400	1390
60831	35	30	40	.5	.3	.1	1400	1400	112	50	30	20	.1	.2	.1	1200	1330
60832	385	140	485	7.4	.2	7.1	850	850	221	560	140	560	7.6	.3	7.5	910	920
60833	330	90	325	3.4	.0	3.1	850	850	221	480	110	370	2.5	.0	3.0	820	870
60834	500	400	500	3.1	2.5	3.4	1000	1050	222	510	220	510	3.0	1.8	3.0	1020	1020
60835	65	130	100	.0	.8	.0	900	900	111	220	120	200	.0	.4	.0	860	850

TABLE 5.10-5 DEQ & HTS IDLE TEST RESULTS (VANCOUVER FLEET) (CONT'D)

	DEQ IDLE TEST									HTS IDLE TEST							
	HC			CO			RPM			HC			CO			RPM	
EPA NO	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND	STA	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND
60836	360	165	420	5.6	2.5	5.7	850	850	221	420	140	490	4.4	.9	5.0	760	790
60837	105	60	160	3.7	.2	3.8	800	800	121	170	50	160	4.6	.4	4.5	740	780
60838	35	40	55	.2	.1	.1	800	800	111	30	30	50	.1	.2	.1	840	830
60839	555	215	435	1.9	4.8	2.2	850	850	221	580	200	620	2.6	6.1	2.8	880	880
60840	390	95	365	6.7	.1	6.3	650	650	221	520	120	560	6.1	.3	6.6	690	690
60841	105	140	405	3.8	4.3	8.0			12	580	190	540	7.5	3.6	7.6	910	910
60843	90	70	310	1.4	.1	1.6	900	900	111	170	50	100	2.6	.2	1.7	640	860
60844	160	125	155	.0	.1	.0	850	850	111	240	150	210	.0	.0	.0	720	720
60845	70	45	80	.0	.0	.0	950	950	111	90	50	80	.5	.0	.0	850	1000
60846	225	150	280	2.1	.3	1.5	90[illegible]	900	221	240	70	230	.9	.0	1.0	800	800
60847	0	25	95	.0	.0	.0	8[illegible]	800	111	20	0	20	.0	.0	.0	970	980
60848	85	195	190	.6	.3	.4	80[illegible]	800	111	90	50	90	.4	.2	.4	800	810
60849	110	60	130	.0	.1	.0	800	800	111	170	50	130	.0	.0	.0	790	820
60850	355	85	170	6.8	1.2	7.0	1000	1000	121	114	100	230	7.4	2.3	7.5	982	970
60851	285	135	85	5.7	.1	.0	900	900	111	70	40	50	.0	.0	.0	880	880
80801	30	70	40	.0	1.9	.0	950	950	111	20	20	20	.0	.3	.0	880	930
80802	60	25	75	.0	.0	.0	800	800	111	100	30	80	.0	.0	.0	730	770
80803	100	45	165	.1	.1	.0	800	800	111	160	50	100	.0	.0	.0	850	860
80804	75	60	70	.1	.8	.0	700	700	111	120	60	80	.2	.2	.0	660	680
80805	205	50	230	3.7	.1	3.4	900	900	221	200	40	190	1.4	.0	1.9	850	870
80806	270	125	235	2.2	.6	1.4	950	950	221	310	150	300	1.1	.8	1.1	930	950
80807	445	75	460	.3	.0	.2	900	900	211	420	80	520	.1	.1	.2	850	880
80808	25	45	25	.1	.0	.0	1050	1050	111	50	60	20	.0	.0	.0	750	820
80809	95	55	135	.2	.2	.1	800	800	111	100	40	80	.2	.2	.2	750	840
80810	160	85	55	.9	.1	.1	650	650	111	120	80	140	.0	1.5	.1	780	850
80811	125	65	120	.0	.1	.0	625	625	111	140	30	80	.0	.0	.0	700	720
80812	25	60	25	.0	.0	.0	1250	850	111	70	40	20	.0	.0	.0	680	950
80813	35	40	35	.0	.0	.0	800	800	111	130	90	120	.0	.2	.0	790	860
80814	110	35	105	.0	.0	.0	1100	1100	111	240	70	250	.0	.0	.0	1060	1010
80815	505	135	295	2.4	.0	.6	600	600	211	490	190	510	1.1	.0	2.2	690	690

TABLE 5.10-5 DEQ & HTS IDLE TEST RESULTS (VANCOUVER FLEET) (CONT'D)

	DEQ IDLE TEST									HTS IDLE TEST							
	HC			CO			RPM			HC			CO			RPM	
EPA NO	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND	STA	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND
80816	90	50	85	.5	.0	.5	1200	1250	112	90	60	90	.4	.2	.5	1110	1110
80817	105	110	100	.0	.0	.0	1100	1100	111	210	80	120	.0	.0	.0	900	910
80818	70	55	80	.0	.0	.0	700	700	111	80	10	30	.0	.0	.0	680	720
80819	70	80	120	.0	.0	.1	600	650	111	60	50	50	.0	.0	.0	560	580
80820	50	50	70	.0	.1	.0	700	700	111	50	20	40	.0	.0	.0	640	660
80821	220	155	330	3.3	.7	3.7	750	750	221	430	100	380	6.9	.1	6.3	730	720
80822	85	115	95	.0	.1	.0	800	800	111	90	30	70	.0	.0	.0	720	810
80823	120	20	135	.0	.1	.0	980	950	111	60	20	50	.0	.0	.0	870	890
80824	100	60	75	.0	1.0	.0	800	800	111	50	50	30	.0	1.1	.0	870	920
80825	610	160	650	2.6	.1	2.5	1000	1000	221	720	140	750	2.2	.0	1.7	850	850
80826	25	35	50	.0	.0	.0	900	900	111	90	10	60	.0	.0	.0	880	910
80827	100	65	95	2.9	.1	.0	1000	1000	111	80	20	30	.0	.0	.0	1070	1090
80828	35	40	40	.0	.0	.0	1000	1050	111	40	50	20	.0	.0	.0	1210	1160
80829	45	40	60	.1	.5	.0	800	800	111	90	10	30	.0	.2	.0	790	810
80830	120	110	140	.0	.0	.0	750	750	111	110	30	80	.0	.0	.0	770	770
80831	40	40	40	.0	.0	.0	950	950	111	50	30	60	.0	.0	.0	1050	1050
80832	725	145	705	5.0	.3	4.4	700	700	221	480	90	550	3.3	.0	3.4	700	710
80833	25	65	35	.0	.0	.0	800	800	111	40	40	80	.0	.0	.1	700	760
80834	40	210	50	.0	.0	.0	1000	1000	111	50	220	40	.0	.0	.0	970	980
80835	135	60	150	1.0	.1	.8	825	825	111	50	20	30	.1	.0	.0	800	810
80836	25	30	40	.0	.1	.0	950	950	111	30	20	20	.0	.0	.0	890	900
80837	75	40	70	.0	.0	.0	800	800	111	180	30	170	.0	.0	.0	800	820
80839	105	190	145	.0	.1	.0	700	700	111	90	140	90	.0	.2	.0	1060	1100
80840	30	45	110	.1	1.2	.1	700	700	111	30	30	30	.4	1.2	.1	650	680
80841	10	20	10	.0	.9	.0	675	675	111	20	10	20	.0	.0	.0	720	730
80842	15	25	40	.0	.0	.0	750	750	111	60	40	30	.0	.0	.0	840	850
80843	80	50	190	.0	.7	.1	750	800	111	170	70	210	.1	.1	.1	690	710
80844	230	655	355	2.5	.5	2.4	700	700	221	100	700	160	.3	.1	1.5	710	710
80845	100	70	125	2.7	.8	2.8	825	850	121	90	30	100	2.7	.5	2.8	760	780
80846	75	45	100	1.3	.4	1.1	900	900	111	110	50	100	1.5	.2	1.3	830	850
80847	120	195	140	.0	.0	.0	700	700	111	170	210	140	.0	.0	.0	820	840
80848	185	85	210	3.0	.6	3.0	950	950	221	200	70	190	1.2	.4	1.3	950	1000
80849	25	110	30	.0	1.8	.0	1350	1350	111	20	20	20	.0	.0	.0	1310	1370
80850	30	30	60	.0	.0	.0	700	700	111	70	20	40	.0	.0	.0	1280	1280
80851	340	165	335	3.0	.1	2.4	675	800	221	370	80	410	3.1	.5	3.2	760	780

TABLE 5.10-6 DEQ & HTS IDLE TEST RESULTS (PORTLAND FLEET)

	DEQ IDLE TEST									HTS IDLE TEST							
	HC			CO			RPM			HC			CO			RPM	
EPA NO	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND	STA	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND
60901	200	340	65	.2	.1	.1			11	250	490	190	.0	.0	.0	670	650
60902	225	95	325	4.6	.6	4.0	850	850	221	250	80	230	3.5	.9	3.5	720	800
60903	240	45	305	3.3	.1	3.7	750	750	221	330	80	310	2.3	.2	3.1	780	830
60904	40	175	130	.1	4.5	.1	800	800	111	60	160	70	.1	4.3	.1	790	860
60905	555	145	575	3.3	.1	3.9	600	650	221	880	180	830	2.3	.0	2.9	670	680
60906	215	100	230	1.0	.1	.9	650	650	221	230	60	230	.5	.2	.7	600	600
60907	490	180	635	7.5	1.4	6.8	700	700	221	560	260	590	6.6	2.4	6.3	750	810
60908	30	85	35	.0	.0	.0	1000	1000	111	100	70	120	.0	.0	.0	1160	1150
60909	35	100	60	.0	.1	.0	800	800	111	40	30	30	.0	.0	.0	980	810
60910	70	55	85	1.1	.1	.8	1100	1100	111	70	60	90	.7	.1	1.2	790	810
60911	75	65	135	1.1	.1	.7	800	800	111	80	60	90	.9	.2	.9	890	890
60912	805	360	775	.0	.0	.0	800	800	211	140	120	120	.6	.1	.1	740	780
60913	410	235	375	6.3	3.3	4.8	1100	1100	221	400	130	400	4.4	.5	4.4	1040	1080
60915	150	55	125	1.7	.2	.8	750	750	111	210	100	170	1.0	.0	1.3	720	750
60917	85	50	95	.0	.5	.0	700	700	111	340	50	240	.1	.1	.0	610	570
60919	60	65	145	.0	.0	.0	750	750	111	210	60	150	.0	.0	.0	740	790
60920	185	75	210	1.9	.1	1.2	800	800	121	230	30	180	.0	.0	.0	760	800
60921	90	40	135	.1	.0	.1	1000	1000	111	160	70	170	.2	.2	.2	940	910
60923	170	60	205	.0	.0	.0	700	700	111	130	10	120	.0	.0	.0	730	740
60924	85	30	105	.1	.6	.1	900	900	111	90	20	80	.1	.1	.3	630	680
60925	165	70	125	1.9	.3	1.4	900	900	121	220	100	220	1.1	1.2	1.4	900	930
60926	1185	760	1340	6.1	.3	6.1	750	750	221	870	190	820	4.8	.1	5.2	730	720
60927	80	45	55	.0	.1	.0	800	800	111	80	50	80	.2	.1	.0	870	880
60928	100	35	75	.0	.0	.0	800	800	111	90	20	50	.0	.0	.0	830	830
60929	90	35	40	.3	.0	.0	850	850	111	140	30	100	1.0	1.0	1.2	900	980
60930	30	130	55	.0	.0	.0	1150	1150	112	40	110	30	.0	.0	.0	1110	1120
60931	45	125	60	1.0	.1	1.1	1000	1000	111	60	30	50	.5	.1	.7	910	890
60932	15	20	20	.0	.0	.0	800	800	111	60	20	30	.0	.0	.0	690	710
60933	135	460	140	4.0	.2	2.3	850	1000	121	110	420	120	1.5	.0	1.0	810	840
60934	50	30	65	1.2	.2	1.2	1000	1000	111	90	40	80	.6	.2	.6	1000	810
60935	150	65	265	3.8	.7	3.5	750	750	121	170	60	190	3.0	.3	3.5	730	760
60936	175	125	205	2.9	2.2	2.4	900	900	121	250	90	220	1.6	.9	1.6	810	860
60937	190	155	220	1.3	.1	1.2	700	750	221	240	100	250	1.1	.1	1.8	820	850
60938	20	25	40	.0	.0	.0	900	900	111	50	20	40	.0	.0	.0	970	970
60939	225	70	115	4.9	.1	.0	1050	1050	111	80	30	80	.0	.0	.0	1110	1130

TABLE 5.10-6 DEQ & HTS IDLE TEST RESULTS (PORTLAND FLEET) CONT'D

	DEQ IDLE TEST									HTS IDLE TEST							
	HC			CO			RPM			HC			CO			RPM	
EPA NO	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND	STA	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND
60940	170	45	170	3.2	.7	2.7	850	850	121	140	50	170	2.6	.7	3.1	850	830
60941	30	35	70	.0	.0	.0	850	850	111	50	20	60	.0	.0	.0	810	840
60942	130	110	320	2.4	2.5	2.2	750	750	111	240	60	240	2.0	1.1	2.2	830	840
60943	110	160	170	4.1	.4	3.9	950	950	121	100	20	90	3.1	.1	3.1	880	910
60944	45	20	35	.0	.0	.0	700	700	111	30	20	50	.1	.0	.0	760	800
60945	30	30	30	.0	.0	.0	1050	1050	111	20	20	20	.0	.0	.0	1230	1240
60946	100	65	110	.0	.0	.0	900	900	111	140	40	90	.0	.0	.0	850	850
60947	70	20	95	.2	.0	.5	850	850	111	90	20	60	.3	.0	.1	790	800
60948	115	45	120	.1	.2	.1	900	900	111	190	90	160	.2	.3	.2	730	780
60949	320	170	230	2.2	1.3	1.5	1050	1050	221	370	100	350	1.2	.4	1.3	920	930
60950	220	30	385	2.5	.0	7.3	650	650	221	280	90	70	3.6	.1	.3	580	650
60951	85	95	85	3.4	.8	3.1			12	70	30	80	2.1	.5	2.2	1100	1070
60952	175	95	190	1.1	.2	1.1	900	900	111	160	60	140	.0	.2	.0	880	880
60953	80	50	80	.0	.0	.0	775	775	111	90	50	60	.0	.0	.0	850	850
60954	1040	195	1055	1.0	1.6	1.1	650	650	211	1160	200	1010	.5	.5	.6	770	760
80901	130	70	65	.0	.0	.0	1150	1050	111	30	20	20	.0	.0	.0	1190	1180
80902	30	100	55	.0	3.0	.0	1000	1000	111	50	20	30	.0	.0	.0	1030	1020
80903	30	20	65	.0	.0	.0	450	650	111	60	20	80	.0	.0	.0	590	590
80904	35	60	30	.0	.2	.0	700	700	111	80	10	60	.0	.0	.0	700	700
80906	115	55	95	.1	.4	.1	850	850	111	40	10	20	.0	.1	.0	960	820
80907	115	125	150	.0	.1	.0	700	700	111	80	60	50	.0	.0	.0	730	770
80908	260	165	190	2.6	.1	.1	800	800	111	90	200	60	.0	.0	.0	990	980
80909	255	65	310	4.7	.1	4.3	800	800	221	320	160	290	4.8	.4	4.8	730	770
80910	25	40	30	.0	.0	.0	925	925	111	10	10	0	.0	.0	.0	950	940
80911	35	60	50	.0	.0	.0	700	700	111	60	30	50	.0	.0	.0	590	630
80912	100	110	210	.1	2.2	.1	900	900	111	90	60	80	.2	2.0	.1	910	940
80913	55	45	60	.0	.1	.0	700	700	111	70	20	10	.0	.0	.0	640	710
80914	85	45	100	.0	.0	.0	800	800	111	90	20	40	.0	.0	.0	750	820
80915	95	70	160	.2	.0	.9	550	550	111	160	50	190	.9	.3	1.4	610	640
80916	30	40	65	.0	.1	.0	650	650	111	20	60	30	.0	1.7	.0	680	680

TABLE 5.10-6 DEQ & HTS IDLE TEST RESULTS (PORTLAND FLEET) CONT'D

	DEQ IDLE TEST									HTS IDLE TEST							
	HC			CO			RPM			HC			CO			RPM	
EPA NO	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND	STA	1ST	2500	2ND	1ST	2500	2ND	1ST	2ND
80919	110	90	115	.0	.0	.0	750	750	111	90	40	100	.0	.0	.0	790	740
80920	30	30	30	.0	.0	.0	750	750	111	60	190	60	.2	.0	.0	700	720
80921	50	40	70	1.8	.4	1.5			12	80	20	40	1.6	.4	1.3	670	700
80923	65	45	85	.0	.0	.0	800	800	111	130	60	90	.0	.0	.0	770	810
80924	110	55	105	.4	.2	.1	850	850	111	50	20	20	.0	.0	.0	700	740
80925	135	80	180	.3	.2	.2	800	800	111	220	170	200	.7	4.1	.6	820	830
80926	55	120	130	.0	3.2	.1	750	750	111	230	40	220	.4	.0	.6	790	810
80927	165	70	105	.0	.4	.0	750	750	111	70	30	30	.0	.0	.0	730	720
80928	30	30	35	1.0	.2	1.1	800	800	111	50	20	40	1.1	.3	1.1	830	850
80929	30	45	40	.1	.0	.0	1000	1000	111	100	30	60	.0	.0	.0	980	990
80930	160	265	185	1.6	.6	1.4	1200	1200	111	140	90	140	.9	.3	.9	1070	1120
80931	235	105	210	.8	1.5	.3	850	850	111	230	90	220	.8	1.1	.8	850	890
80932	60	40	45	.1	.1	.0	750	750	111	50	0	10	.1	.0	.0	770	780
80933	245	55	185	1.8	.0	1.6	1000	1000	221	200	80	200	.8	.8	1.1	1040	1140
80934	60	50	90	.0	.0	.0	900	900	111	50	10	20	.0	.0	.0	800	850
80935	90	95	135	.0	.0	.0	900	900	111	90	50	50	.0	.0	.0	760	780
80936	75	50	65	.2	.2	.2	1100	1100	111	90	40	40	.3	.1	.3	1030	1070
80937	60	205	70	.0	.0	.0	800	800	111	90	220	80	.0	.0	.0	830	890
80938	65	20	55	.1	1.2	.2	1100	1100	111	70	50	60	.0	.9	.0	1060	1080
80939	320	55	65	.1	.1	.0	850	850	111	90	30	70	.3	.0	.0	880	900
80940	130	120	125	.0	.0	.0	850	850	111	110	90	80	.0	.0	.0	1020	1030
80941	315	370	410	3.4	.1	3.4	900	900	221	240	260	260	1.6	.1	1.7	750	800
80942	60	55	110	.3	.1	.1	800	800	111	90	50	90	.4	.2	.4	760	810
80943	155	45	140	.0	.0	.0			11	280	40	190	.0	.0	.0	860	880
80944	40	95	60	.0	.0	.0	800	800	111	50	20	70	.0	.0	.0	810	820
80947	290	60	55	1.3	.1	.0	650	650	111	60	20	70	.0	.0	.0	660	660
80948	175	70	215	1.3	.4	1.0	850	850	221	230	60	220	1.8	.1	1.4	850	880
80949	140	40	120	.7	.1	.0	800	800	111	150	60	150	.4	.5	.7	730	850
80950	270	115	265	3.6	.3	2.7	850	850	221	390	180	380	2.1	1.5	2.4	820	860
80951	225	90	155	.3	.6	.0	600	600	111	230	150	230	.5	1.7	.4	890	880
80952	80	40	55	.1	.0	.0	750	750	111	60	210	30	.0	.0	.0	780	790
80953	430	165	415	4.3	.4	1.3	900	900	221	450	60	350	.0	.0	.0	670	720
80954	80	35	35	1.3	.0	.0	650	700	111	30	10	20	.0	.0	.0	690	710
80955	15	25	20	.0	.1	.0	850	900	111	130	60	70	.0	.1	.0	930	940
80956	170	75	105	.0	.0	.0	900	900	111	150	60	90	.0	.0	.0	970	990

TABLE 5.10-7 TWO MODE & 50 MPH CRUISE TESTS (VANCOUVER FLEET)

	---TWO MODE (30MPH)--					---TWO MODE (IDLE)---					----50 MPH CRUISE----				
	-----LAB-----			GARAGE		-----LAB----			GARAGE		-----LAB-----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60801	1189	.3	999	90	.3	495	.5	65	50	.5	1055	.4	1348	70	.4
60802	1503	.1	1132	100	.1	5125	3.4	43	320	3.4	396	.0	641	30	.0
60803	185	.0	597	0	.0	188	.0	78	10	.0	87	.0	527	0	.0
60804	388	.2	411	40	.2	290	.1	62	40	.1	308	.1	459	50	.1
60805	1892	.1	250	160	.1	8413	4.1	51	600	4.1	950	.0	489	100	.0
60806	1724	.3	1661	100	.4	2192	3.0	76	110	3.0	1558	.4	1599	100	.4
60807	1336	.0	2395	90	.0	369	.1	95	30	.1	1229	.1	2493	80	.1
60808	965	.1	150	90	.3	1020	.0	46	110	.0	273	.0	390	30	.0
60809	2809	1.9	210	170	2.0	3310	2.0	56	170	2.1	133	.0	734	10	.0
60810	792	.3	733	50	.3	9999	5.9	40	1950	5.5	180	.1	808	20	.2
60811	33	.0	162	20	.0	27	.0	92	20	.0	54	.0	257	20	.0
60812	1195	.2	506	90	.1	9999	5.6	35	620	6.0	648	.1	1154	40	.2
60813	270	.0	203	40	.0	1219	.1	18	160	.1	240	.0	609	40	.0
60814	1263	.0	331	110	.0	5081	1.8	52	350	1.7	492	.0	1087	40	.0
60815	2024	.7	551	120	.7	2499	1.0	117	180	1.0	2603	2.0	461	130	2.0
60816	472	.0	370	30	.0	7921	1.9	36	630	2.2	90	.0	726	30	.0
60817	1595	.7	288	120	1.0	2290	3.5	61	140	3.6	277	.0	1195	40	.0
60818	613	.1	310	60	.0	2019	.0	51	280	.0	558	.1	587	50	.1
60819	1035	.4	950	50	.5	2718	2.5	51	140	2.6	943	.4	1140	40	.4
60820	885	.1	1125	90	.1	980	2.7	63	200	2.6	414	.1	1486	50	.1
60821	494	.0	228	60	.0	772	.0	56	110	.0	261	.0	278	20	.0
60822	1213	.1	2496	100	.1	1855	.4	98	120	.4	662	.1	1237	60	.1
60823	644	.0	2496	50	.0	852	.0	153	70	.0	24	.0	2493	50	.0
60824	2883	.1	1723	200	.1	8012	4.4	73	510	4.2	1626	.1	1960	100	.1
60825	1311	.0	285	200	.0	638	.0	53	100	.0	1708	.0	502	200	.1
60826	1923	.0	808	260	.0	1617	.1	58	190	.1	494	.0	1003	80	.0
60827	485	.1	1429	50	.0	185	.0	73	20	.0	442	.0	1604	40	.0
60828	852	.1	210	50	.2	3300	4.8	41	160	4.7	133	.0	806	20	.0
60829	1188	.0	502	130	.0	6598	.1	61	900	.2	818	.0	435	50	.0
60830	1525	.0	577	150	.0	350	.0	153	30	.0	751	.0	420	50	.0
60831	913	.2	1599	60	.2	677	.1	63	40	.1	781	.2	1673	60	.2
60832	2228	.1	1334	160	.1	6528	5.1	73	410	5.0	861	.0	1883	80	.0
60833	934	.0	280	80	.0	5114	2.5	48	280	2.8	329	.0	297	20	.0
60834	4791	.8	147	360	1.0	4129	1.2	90	200	1.2	3798	1.4	307	230	1.6
60835	182	.0	220	20	.0	1087	.0	61	180	.0	500	.0	587	40	.0

TABLE 5.10-7 TWO MODE & 50 MPH CRUISE TESTS (VANCOUVER FLEET) (CONT'D)

	---TWO MODE (30MPH)--					---TWO MODE (IDLE)---					----50 MPH CRUISE----				
	-----LAB-----			GARAGE		-----LAB----			GARAGE		-----LAB-----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60836	2381	2.2	121	140	2.3	7130	5.1	36	410	4.8	6418	.5	271	90	.6
60837	798	.1	209	40	.1	2465	3.5	45	100	3.4	339	.0	593	30	.0
60838	809	.1	1192	60	.1	490	.1	96	40	.1	530	.1	634	50	.1
60839	4222	4.3	375	280	4.1	7357	1.7	46	570	1.7	4152	6.0	288	240	5.5
60840	1602	.1	409	90	.1	6384	4.4	27	340	4.4	250	.0	790	20	.0
60841	2277	2.3	1150	140	2.4	5736	4.7	58	380	4.3	163	.0	1992	40	.0
60843	1090	.1	569	60	.1	739	1.0	51	40	.9	1464	.1	1898	60	.1
60844	244	.0	915	40	.0	792	.0	69	120	.0	186	.0	1169	10	.0
60845	831	.0	371	80	.0	599	.0	106	80	.0	528	.0	431	60	.0
60846	1308	.1	347	100	.1	4042	1.6	83	210	1.7	292	.1	821	40	.1
60847	72	.0	307	10	.0	91	.0	71	10	.0	142	.0	806	20	.0
60848	1375	.1	871	100	.1	1219	.4	43	110	.4	1433	.3	2284	100	.3
60849	801	.1	271	50	.0	1250	.0	46	120	.0	109	.0	742	20	.0
60850	2257	.2	1598	120	.2	2942	4.3	44	130	4.2	2116	.3	1468	100	.3
60851	489	.0	1468	60	.0	461	.0	59	50	.0	210	.0	256	30	.0
80801	433	.0	833	20	.0	179	.0	53	10	.0	221	.0	1307	20	.0
80802	253	.0	331	30	.0	177	.0	100	20	.0	88	.0	329	20	.0
80803	341	.0	943	50	.0	442	.0	58	60	.0	215	.0	841	40	.0
80804	327	.0	2493	50	.0	354	.0	82	40	.0	91	.0	2493	30	.0
80805	1724	1.0	258	130	1.3	4361	3.0	41	240	3.1	154	.0	405	30	.0
80806	2407	.6	130	200	.8	3147	1.2	42	200	1.0	510	.0	483	60	.0
80807	152	.0	503	20	.0	868	.1	42	120	.1	155	.0	613	20	.0
80808	137	.0	469	20	.0	128	.0	82	20	.0	115	.0	379	20	.0
80809	209	.1	726	40	.2	475	.1	58	50	.2	307	.0	826	40	.1
80810	109	.0	222	20	.0	247	.0	77	30	.0	204	.0	401	20	.0
80811	155	.0	1730	20	.0	333	.0	107	50	.0	122	.0	2171	20	.0
80812	237	.0	168	30	.0	194	.0	71	20	.0	203	.0	372	40	.0
80813	1115	.1	1751	80	.0	460	.0	130	40	.0	280	.0	2259	50	.0
80814	473	.0	1922	40	.0	424	.0	152	40	.0	1373	.0	1506	90	.0
80815	1800	.0	901	180	.0	5094	.0	43	420	.0	350	.0	385	40	.0

TABLE 5.10-7 TWO MODE & 50 MPH CRUISE TESTS (VANCOUVER FLEET) (CONT'D)

	---TWO MODE (30MPH)--					---TWO MODE (IDLE)---					----50 MPH CRUISE----				
	-----LAB-----			GARAGE		-----LAB----			GARAGE		-----LAB-----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
80816	1038	.0	1125	70	.1	411	.0	113	40	.0	1081	.1	1661	80	.1
80817	324	.0	149	20	.0	216	.0	37	20	.0	369	.0	262	20	.0
80818	853	.7	244	90	1.4	333	.0	72	40	.0	88	.0	541	20	.0
80819	926	.1	1112	90	.1	2789	.5	47	190	.5	207	.0	758	20	.0
80820	171	.0	222	20	.0	259	.0	57	20	.0	149	.0	476	20	.0
80821	1901	.1	2493	120	.1	4864	3.6	88	240	3.6	393	.0	950	20	.0
80822	158	.0	835	20	.0	388	.0	107	40	.0	119	.0	568	10	.0
80823	148	.0	322	30	.0	622	.0	113	90	.0	154	.0	487	30	.0
80824	1711	1.1	1038	150	1.5	353	.0	61	40	.0	659	.2	1262	70	.1
80825	463	.0	764	60	.0	7982	1.3	53	700	1.4	249	.0	714	40	.0
80826	81	.0	340	10	.0	270	.0	83	40	.0	62	.0	602	20	.0
80827	371	.0	150	40	.0	463	.0	86	60	.0	59	.0	228	0	.0
80828	316	.0	140	20	.0	154	.0	101	20	.0	301	.0	198	20	.0
80829	341	.0	554	20	.0	295	.0	78	40	.0	212	.0	552	20	.0
80830	322	.0	402	50	.0	138	.0	252	40	.0	188	.0	759	50	.0
80831	313	.0	312	40	.0	234	.0	73	20	.0	166	.0	245	20	.0
80832	2657	.2	2134	220	.3	6127	2.0	108	500	2.4	243	.0	2496	60	.0
80833	267	.0	113	20	.0	2412	1.0	33	180	1.0	368	.0	293	40	.0
80834	124	.0	1960	30	.0	166	.0	183	40	.0	102	.0	1013	20	.0
80835	325	.0	1055	50	.0	243	.0	78	30	.0	127	.0	846	20	.0
80836	65	.0	317	20	.0	283	.0	178	40	.0	81	.0	310	20	.0
80837	570	.0	265	90	.0	1152	.0	58	160	.0	463	.0	340	60	.1
80839	467	.0	346	40	.0	192	.0	107	20	.0	204	.0	506	20	.0
80840	1608	2.4	483	100	2.4	525	.3	42	40	.4	700	.6	975	40	.3
80841	125	.0	1261	20	.0	63	.0	62	10	.0	79	.0	1772	20	.0
80842	561	.0	307	40	.0	228	.0	78	10	.0	555	.0	402	40	.0
80843	822	.1	361	40	.1	1006	.0	45	60	.0	1299	.0	1722	90	.1
80844	791	.0	106	70	.0	1402	.9	43	70	1.0	540	.0	160	40	.0
80845	1314	.6	2808	150	.5	1819	1.3	55	80	1.2	3197	.7	1336	160	.7
80846	761	.1	247	40	.1	801	.5	37	50	.5	1336	.1	1181	100	.1
80847	691	.0	219	80	.0	1159	.0	132	180	.0	1312	.0	249	110	.0
80848	1543	.5	1798	110	.5	3120	2.6	111	170	2.7	338	.0	1736	30	.1
80849	1385	1.1	1750	120	1.6	171	.0	273	20	.0	143	.0	2491	20	.0
80850	327	.0	1254	40	.0	210	.0	71	30	.0	241	.0	1606	40	.0
80851	87	.0	28	30	.0	313	.1	8	40	.1	68	.0	78	20	.0

TABLE 5.10-8 TWO MODE & 50 MPH CRUISE TESTS (PORTLAND FLEET)

	---TWO MODE (30MPH)--					---TWO MODE (IDLE)---					----50 MPH CRUISE----				
	-----LAB-----			GARAGE		-----LAB----			GARAGE		-----LAB-----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60901	492	.0	588	50	.0	1373	.0	24	180	.0	229	.0	775	20	.0
60902	1229	.9	104	60	.9	1517	.8	29	80	.8	1862	2.2	166	70	2.7
60903	792	.2	483	70	.1	3437	2.8	26	200	2.6	204	.1	969	20	.1
60904	3177	4.1	66	190	4.0	1306	.1	74	100	3.1	4099	5.7	71	240	5.1
60905	460	.0	293	50	.0	8513	1.4	43	680	1.6	209	.0	684	30	.0
60906	1049	.1	398	60	.1	1428	.1	64	120	.1	149	.0	977	20	.0
60907	3541	.5	1873	210	.6	6548	5.1	148	400	4.9	830	.0	1060	60	.1
60908	136	.0	709	20	.0	117	.0	73	20	.0	185	.0	602	30	.0
60909	645	.0	251	60	.0	363	.0	46	40	.0	424	.0	503	40	.0
60910	1353	.1	1918	90	.1	589	.6	58	40	.7	1194	.2	1666	80	.2
60911	797	.0	1108	70	.1	515	.2	36	50	.3	1323	.2	2174	100	.2
60912	338	.0	168	30	.0	387	.1	81	40	.1	221	.0	260	20	.0
60913	3009	3.1	484	230	3.2	3791	4.6	78	290	4.5	546	.0	1182	60	.1
60915	669	.1	271	60	.3	2321	1.3	26	130	1.3	94	.0	603	20	.0
60917	87	.0	198	40	.0	252	.0	76	60	.0	524	.0	803	60	.0
60919	151	.0	387	20	.0	310	.0	63	50	.0	332	.0	1668	40	.0
60920	449	.0	453	60	.0	1342	.1	41	180	.1	388	.0	451	40	.0
60921	675	.0	815	60	.1	1281	.1	71	80	.1	149	.0	623	20	.0
60923	418	.0	1049	40	.0	1076	.0	54	160	.0	516	.0	1384	50	.0
60924	362	.1	335	50	.1	478	.1	53	60	.1	120	.0	347	30	.0
60925	1396	1.2	300	110	1.1	1326	.3	36	110	.4	148	.0	709	40	.0
60926	341	.0	911	50	.0	6518	2.6	36	480	2.6	93	.0	1499	20	.0
60927	877	.0	2379	70	.0	822	.0	89	60	.0	522	.0	2491	50	.0
60928	136	.1	233	20	.0	99	.0	51	20	.0	124	.0	507	20	.0
60929	913	1.2	126	80	1.2	858	.3	33	70	.3	56	.0	410	20	.0
60930	1096	.0	317	130	.0	423	.0	150	60	.0	2121	.0	532	180	.0
60931	356	.1	459	40	.1	218	.1	48	40	.0	714	.1	1225	60	.1
60932	302	.0	2391	30	.0	149	.0	94	20	.0	385	.0	1511	40	.0
60933	486	.0	166	40	.0	724	.4	54	50	.5	342	.0	438	20	.0
60934	654	.1	954	50	.2	421	.3	46	40	.3	556	.2	1164	40	.2
60935	352	.0	491	50	.0	2076	2.5	58	120	2.5	255	.0	1125	40	.0
60936	2100	1.4	307	170	1.4	3210	1.4	53	200	1.4	381	.0	766	60	.0
60937	877	.3	316	50	.1	2832	1.3	44	160	1.3	296	.0	441	30	.1
60938	455	.0	1134	40	.0	320	.0	64	30	.0	278	.0	453	20	.0
60939	347	.0	180	50	.0	280	.0	51	50	.0	237	.0	307	40	.0

TABLE 5.10-8 TWO MODE & 50 MPH CRUISE TESTS (PORTLAND FLEET) CONT'D

	---TWO MODE (30MPH)--					---TWO MODE (IDLE)---					----50 MPH CRUISE----				
	-----LAB-----			GARAGE		-----LAB----			GARAGE		-----LAB-----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60940	1446	.6	1057	70	.6	1474	1.7	34	90	1.7	2058	1.3	1047	120	1.4
60941	339	.0	1878	40	.0	305	.0	121	60	.0	149	.0	2491	30	.0
60942	1914	.6	1279	110	.7	1211	.6	39	90	.7	1878	.7	1533	100	.8
60943	87	.0	335	30	.0	1170	2.8	38	80	2.7	108	.0	484	30	.0
60944	540	.0	1442	70	.0	442	.0	71	50	.0	399	.0	1815	50	.0
60945	522	.0	2411	60	.0	158	.0	74	20	.0	486	.0	2192	60	.0
60946	262	.0	398	20	.0	709	.0	51	100	.0	308	.0	675	20	.0
60947	200	.0	435	0	.0	1243	.5	61	60	.6	65	.0	796	0	.0
60948	607	.2	552	40	.2	1372	.1	83	80	.2	237	.2	1068	60	.2
60949	1235	.3	550	80	.3	3377	.9	36	370	1.0	272	.0	1087	30	.0
60950	1679	.0	852	180	.0	957	.0	39	80	.0	813	.0	1102	80	.0
60951	1317	.1	1785	90	.1	1494	1.5	53	80	1.6	1409	.2	2047	90	.2
60952	871	.1	416	90	.1	764	.0	26	90	.0	437	.0	807	40	.0
60953	999	.0	153	130	.0	699	.0	36	100	.0	1152	.0	302	120	.0
60954	2008	1.2	943	130	1.4	9999	.7	98	1620	.9	1687	1.0	666	120	1.0
80901	547	.0	1069	60	.0	354	.0	51	40	.0	525	.0	1244	60	.0
80902	770	.1	658	100	.1	446	.0	21	50	.0	278	.0	827	20	.0
80903	311	.0	303	30	.0	492	.0	146	60	.0	608	.0	401	60	.1
80904	65	.0	121	40	.0	301	.0	16	60	.0	117	.0	113	40	.1
80906	231	.0	784	30	.0	494	.0	71	60	.1	81	.0	1255	20	.0
80907	252	.0	183	30	.0	203	.0	81	30	.0	117	.0	302	20	.0
80908	699	.0	133	100	.0	393	.0	33	60	.0	212	.0	128	50	.0
80909	709	.0	141	80	.0	3437	3.6	21	220	3.5	155	.0	156	50	.0
80910	2132	.9	1199	140	1.5	253	.0	46	30	.0	299	.0	471	30	.0
80911	120	.0	367	30	.0	179	.0	73	40	.0	154	.0	756	40	.0
80912	535	.1	535	20	.2	155	.0	31	20	.0	376	.1	495	40	.1
80913	564	.0	2122	60	.0	157	.0	86	30	.0	246	.1	325	40	.1
80914	167	.0	618	20	.0	226	.0	46	30	.0	119	.0	862	20	.0
80915	975	.0	1893	60	.0	1948	1.3	91	120	1.3	476	.1	862	40	.1
80916	111	.0	377	20	.0	90	.0	71	20	.0	120	.0	734	20	.0

TABLE 5.10-8 TWO MODE & 50 MPH CRUISE TESTS (PORTLAND FLEET) CONT'D

	---TWO MODE (30MPH)---					---TWO MODE (IDLE)---					----50 MPH CRUISE----				
	-----LAB-----			GARAGE		-----LAB----			GARAGE		-----LAB-----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
80919	192	.0	303	20	.0	528	.0	46	80	.0	158	.0	458	20	.0
80920	506	.0	121	80	.0	93	.0	61	40	.0	111	.0	170	30	.0
80921	1608	.4	1399	100	.5	562	.9	39	30	1.0	522	.5	1661	30	.5
80923	216	.0	1291	30	.0	262	.0	89	30	.0	134	.0	1668	30	.0
80924	1971	.4	975	160	.4	931	.0	58	120	.0	179	.0	853	40	.0
80925	509	.0	225	60	.0	384	.0	36	60	.0	341	.0	268	60	.0
80926	189	.0	366	20	.0	929	.1	16	110	.1	94	.0	720	20	.0
80927	708	.1	1265	70	.1	120	.0	36	30	.0	114	.0	1711	30	.0
80928	525	.1	530	40	.1	284	.5	39	20	.6	853	.1	1648	70	.2
80929	405	.0	310	60	.0	316	.0	106	60	.0	148	.0	574	40	.0
80930	3972	.2	2496	290	.2	2443	.6	118	150	.6	4012	.3	2496	260	.4
80931	2238	2.0	886	160	2.2	2106	.3	143	160	.5	1103	.4	447	90	.5
80932	287	.0	703	30	.0	525	.0	64	50	.0	143	.0	1017	20	.0
80933	568	.0	331	50	.0	4400	1.7	49	290	1.8	587	.2	575	70	.2
80934	220	.0	221	10	.0	623	.0	46	80	.0	103	.0	164	10	.0
80935	319	.0	474	80	.0	524	.0	81	100	.0	157	.0	624	40	.0
80936	26	.0	98	20	.0	26	.0	13	20	.0	154	.0	158	30	.0
80937	688	.0	446	80	.0	403	.0	94	50	.0	418	.0	318	50	.0
80938	1601	1.3	1289	100	1.5	561	.0	58	30	.0	683	.2	1883	60	.1
80939	2290	.4	913	160	.4	1188	.0	71	120	.0	335	.0	826	50	.0
80940	2137	.1	527	190	.1	1402	.0	145	180	.0	797	.0	332	90	.0
80941	327	.0	433	40	.0	3818	2.6	24	250	2.7	226	.0	715	30	.0
80942	1006	.1	466	20	.0	678	.1	44	20	.0	1501	.1	1586	110	.1
80943	547	.0	1808	50	.0	951	.0	119	140	.0	385	.0	2491	40	.0
80944	1188	.1	1008	100	.0	564	.0	126	80	.0	1225	.1	1132	100	.1
80947	372	.0	291	20	.0	1174	.4	21	100	.4	932	.0	236	100	.0
80948	629	.0	1299	40	.1	2694	1.9	56	160	2.0	149	.0	1768	20	.0
80949	739	.0	1549	100	.0	2051	.4	81	160	.5	867	.0	1561	100	.0
80950	507	.0	333	60	.0	3548	1.6	21	240	1.9	669	.0	251	60	.1
80951	516	.0	2282	80	.1	400	.1	81	80	.2	207	.0	1878	30	.0
80952	354	.0	171	40	.0	180	.0	46	10	.0	476	.0	166	40	.0
80953	513	.0	478	50	.0	1113	.0	46	100	.0	483	.0	663	40	.0
80954	351	.0	303	40	.0	281	.0	41	20	.0	761	.0	383	80	.0
80955	874	.0	620	90	.0	522	.0	124	70	.0	1419	.0	1049	120	.0
80956	353	.0	158	20	.0	307	.0	103	20	.0	943	.0	185	40	.0

TABLE 5.10-9 FOUR MODE TEST RESULTS (VANCOUVER FLEET)

EPA NO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	------2500 RPM------ ----LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE IN GEAR---- ----LAB---- HC	CO	NOX	GARAGE HC	CO
60801	538	.6	42	60	.6	167	.2	85	30	.2	495	.5	27	60	.6					
60802	4613	3.1	23	290	3.0	668	.1	248	50	.1	4443	3.2	28	280	3.2	3390	3.4	26	270	3.6
60803	163	.0	43	0	.0	142	.0	103	0	.0	130	.0	46	0	.0	68	.0	113	0	.0
60804	871	.1	45	90	.1	293	.1	87	40	.1	486	.1	37	50	.1					
60805	7942	3.7	48	560	3.7	2939	.1	180	270	.1	7932	3.9	46	590	3.8	6749	4.2	48	540	4.1
60806	1926	2.9	71	100	3.0	1409	1.4	106	70	1.6	2265	3.0	58	100	3.1					
60807	281	.0	57	40	.0	302	.0	234	40	.0	272	.0	95	30	.0					
60808	6688	5.2	56	490	5.4	1204	.2	63	110	.2	992	.0	43	120	.0	540	.0	58	50	.0
60809	3420	1.9	56	180	2.0	1158	1.1	148	50	1.2	3390	2.0	56	200	2.2	3470	2.0	113	240	2.1
60810	9999	5.9	12	2000	5.4	997	.2	135	180	.3	9999	6.9	17	1550	6.5	9999	6.9	10	1680	6.4
60811	63	.0	57	20	.0	45	.0	125	20	.0	33	.0	67	20	.0	27	.0	102	20	.0
60812	9999	5.8	70	900	5.4	1006	.0	244	100	.1	9999	6.5	35	800	6.0	7206	6.6	20	450	6.2
60813	347	.0	51	40	.0	221	.0	128	30	.0	402	.0	48	50	.0	255	.0	108	40	.0
60814	5502	1.7	35	390	1.6	1526	.0	154	200	.0	4610	1.9	42	300	2.0	3367	1.9	52	250	1.6
60815	1994	.4	50	130	.4	1403	1.3	122	60	1.3	2024	.1	45	200	.1	1501	.1	55	120	.1
60816	6598	1.0	33	640	1.0	1164	.0	158	150	.0	7029	2.3	33	560	2.4	4042	2.5	43	320	2.5
60817	2302	3.2	61	140	3.3	1005	.8	140	70	1.0	2216	3.3	58	140	3.5	2222	3.4	71	160	3.6
60818	6197	.1	43	730	.1	690	.1	133	70	.1	2769	.1	46	350	.1	1435	.0	73	160	.0
60819	2718	2.3	43	200	2.3	277	.3	103	30	.5	2909	2.5	38	220	2.6					
60820	2969	2.1	53	200	2.2	442	.1	365	70	.1	3350	2.6	56	220	2.4	3109	2.8	53	240	2.6
60821	669	.0	53	100	.0	387	.0	76	40	.0	607	.0	56	90	.0	537	.0	160	70	.0
60822	2045	.6	73	120	.6	616	.1	696	60	.1	1819	.3	68	120	.5	1543	.1	143	110	.2
60823	3290	.2	91	300	.2	1617	.4	220	90	.5	962	.0	108	100	.0	763	.0	128	100	.0
60824	9999	4.4	41	700	4.4	1409	.2	362	90	.2	6929	3.2	56	480	3.2	6297	3.5	58	460	3.3
60825	9997	8.8	28	580	8.5	3240	.0	153	400	.0	1127	.0	53	160	.0	849	.0	53	90	.0
60826	634	.0	78	90	.0	5315	.0	265	800	.0	390	.0	78	70	.0	172	.0	280	40	.0
60827	396	.0	38	50	.0	179	.0	173	20	.0	234	.0	46	30	.0	365	.0	48	40	.0
60828	3220	4.8	31	160	4.6	674	.1	153	50	.1	3160	4.9	43	150	4.6	3109	4.9	46	200	4.8
60829	2427	.0	93	300	.0	2618	.0	185	300	.0	5586	.2	86	750	.2	3310	1.1	205	300	1.0
60830	8503	5.7	71	580	5.6	882	.0	327	60	.0	353	.0	195	20	.0	5265	5.0	108	440	5.0
60831	491	.1	68	20	.1	313	.1	228	10	.1	310	.1	61	20	.1					
60832	6558	4.9	58	430	4.8	1317	.1	327	100	.1	6468	4.7	58	420	4.5	5766	4.9	71	440	4.8
60833	4824	1.9	51	300	1.9	546	.0	106	20	.0	5004	2.4	51	300	2.5	4703	2.7	81	370	2.4
60834	5983	2.1	132	320	2.0	3497	1.7	75	200	2.2	6244	2.2	32	380	2.2	5031	2.2	60	360	2.1
60835	974	.0	58	120	.0	270	.0	143	30	.0	870	.0	63	100	.0	221	.0	113	30	.0

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TABLE 5.10-9 FOUR MODE TEST RESULTS (VANCOUVER FLEET) (CONT'D)

	----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
	----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60836	6418	4.2	31	410	4.0	1831	1.3	101	80	1.4	6929	5.2	36	420	5.0	5415	4.7	48	380	4.4
60837	2756	3.5	37	120	3.4	516	.0	187	30	.1	2511	3.7	42	100	3.6	2566	4.1	47	160	4.0
60838	613	.1	53	50	.1	283	.1	312	40	.1	478	.1	98	60	.1	843	.1	248	70	.1
60839	7250	2.1	33	570	2.2	4473	5.5	113	200	5.1	6729	2.2	41	500	2.3	4673	2.3	71	380	2.3
60840	6936	4.2	27	360	4.0	1006	.1	167	60	.2	6024	4.4	27	320	4.2	4740	4.5	27	300	4.3
60841	9999	5.9	38	580	5.6	3470	3.7	335	170	3.9	6297	5.0	56	420	4.7	4673	5.4	71	330	4.8
60843	2039	1.7	28	120	1.7	720	.1	123	40	.1	1096	1.0	33	80	1.0					
60844	250	.0	44	20	.0	348	.0	356	20	.0	250	.0	44	20	.0	131	.0	79	10	.0
60845	4229	2.4	26	360	2.4	1434	.0	151	120	.1	914	.0	126	120	.0	782	.0	111	90	.0
60846	5034	1.5	33	400	1.6	1029	.2	165	90	.3	3470	1.2	48	250	1.3	2739	1.2	81	240	1.2
60847	491	.0	23	80	.0	111	.0	56	20	.1	234	.0	48	40	.0					
60848	910	.3	48	80	.3	478	.2	160	50	.1	1087	.3	36	100	.3					
60849	856	.0	24	130	.0	342	.0	179	40	.0	651	.0	39	80	.0	366	.0	71	60	.0
60850	2496	4.1	34	100	3.9	1624	.9	121	80	.9	2789	4.3	29	120	4.2					
60851	657	.5	6	50	.5	149	.0	64	20	.0	131	.0	4	20	.0	403	.5	2	50	.5
80801	203	.0	46	10	.0	292	.2	71	10	.2	212	.0	38	10	.0					
80802	186	.0	42	20	.0	158	.1	90	20	.1	112	.0	57	20	.0	79	.0	72	20	.0
80803	5676	.9	28	740	1.0	292	.0	111	40	.0	781	.0	46	120	.0					
80804	134	.0	62	30	.0	486	.1	234	40	.0	691	.1	47	60	.1	235	.0	102	40	.0
80805	4373	3.0	28	250	3.0	653	.3	123	60	.4	4272	2.8	38	260	2.8	2949	3.3	43	200	3.4
80806	3738	1.1	50	300	1.3	547	.0	139	50	.0	3137	.7	37	250	.7	2625	1.2	90	220	1.3
80807	400	.0	70	40	.0	152	.0	184	20	.0	1480	.1	35	200	.1	1055	.2	159	100	.1
80808	290	.0	72	50	.0	363	.0	172	40	.0	115	.0	97	20	.0	57	.0	224	20	.0
80809	895	.1	58	80	.1	179	.1	133	40	.1	454	.1	51	50	.2					
80810	213	.0	57	30	.0	76	.0	157	20	.0	201	.0	80	30	.0	94	.0	157	20	.0
80811	327	.0	57	40	.0	183	.1	920	20	.1	171	.0	95	30	.0	106	.0	132	20	.0
80812	240	.0	63	30	.0	439	.0	88	50	.0	179	.0	71	20	.0	102	.0	163	20	.0
80813	270	.0	76	40	.0	503	.0	624	40	.0	221	.0	93	30	.0	203	.0	150	30	.0
80814	1410	.0	105	90	.0	681	.0	207	60	.0	1281	.0	70	180	.0					
80815	9997	4.5	26	800	4.6	1433	.0	168	180	.0	2849	.5	33	240	.6	7029	4.7	33	600	4.8

TABLE 5.10-9 FOUR MODE TEST RESULTS (VANCOUVER FLEET) (CONT'D)

	----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
	----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
80816	1433	.3	73	100	.4	381	.0	265	30	.0	1323	.3	61	100	.4					
80817	232	.0	52	20	.0	525	.0	80	60	.0	281	.0	45	20	.0	143	.0	95	20	.0
80818	134	.0	57	10	.0	82	.0	177	10	.0	161	.0	77	20	.0	70	.0	157	10	.0
80819	155	.0	65	20	.0	244	.0	187	30	.0	1511	.1	32	110	.1	1052	.0	27	90	.0
80820	348	.0	57	40	.0	112	.0	172	10	.0	189	.0	57	20	.0	100	.0	90	20	.0
80821	4413	3.0	56	210	3.1	1096	.1	260	60	.1	4834	3.7	53	250	3.8	4573	3.6	53	280	3.7
80822	584	.0	50	80	.0	128	.0	147	20	.1	250	.0	70	30	.0	284	.0	57	40	.0
80823	760	.0	53	120	.0	576	.0	135	80	.0	852	.0	61	150	.0	108	.0	108	50	.0
80824	482	.0	51	60	.0	794	.9	103	60	1.0	347	.0	53	50	.0					
80825	8002	.8	46	760	1.0	442	.0	185	70	.0	7450	1.1	51	540	1.2	4202	2.5	73	370	2.5
80826	215	.0	78	30	.0	35	.0	160	10	.0	225	.0	96	40	.0	47	.0	370	10	.0
80827	5315	2.7	56	420	2.8	185	.0	118	20	.0	246	.0	126	30	.0	228	.0	186	20	.0
80828	781	.0	61	60	.0	179	.0	86	30	.0	237	.0	106	20	.0	402	.0	459	40	.0
80829	433	.0	61	40	.0	117	.0	203	20	.1	209	.0	78	20	.0	301	.0	123	20	.0
80830	277	.0	101	40	.0	136	.0	210	20	.0	194	.0	111	40	.0	160	.0	275	40	.0
80831	6729	3.2	41	420	3.2	478	.0	123	40	.0	280	.0	88	30	.0	377	.0	113	30	.0
80832	9999	5.5	46	1080	5.8	1158	.0	619	100	.0	3922	1.3	46	360	1.4	8493	6.3	31	740	7.0
80833	454	.0	41	40	.0	246	.0	116	30	.0	1586	.4	31	180	.7	898	.3	36	100	.2
80834	172	.0	61	30	.0	1173	.0	390	200	.0	124	.0	78	30	.0	62	.0	395	20	.0
80835	280	.0	68	40	.0	81	.0	150	20	.1	145	.0	56	20	.0	124	.0	126	20	.0
80836	169	.0	96	30	.0	32	.0	133	20	.0	194	.0	101	40	.0	32	.0	604	20	.0
80837	2155	.0	56	300	.0	2014	.3	108	200	.6	1387	.0	76	220	.0	598	.0	175	140	.0
80839	363	.0	97	30	.0	608	.0	60	100	.0	262	.0	100	20	.0	186	.0	326	20	.0
80840	798	.7	82	40	.8	495	.6	277	20	.8	590	.7	60	30	.7	492	.4	60	30	.4
80841	76	.0	57	10	.0	27	.0	451	0	.0	63	.0	52	10	.0	155	.0	50	20	.0
80842	2626	.6	91	200	.6	454	.1	238	40	.0	399	.0	68	40	.0					
80843	1740	.0	27	180	.1	596	.1	197	40	.1	1535	.0	30	120	.1					
80844	1280	.5	38	60	.6	1617	.0	61	230	.0	729	.4	41	50	.5	1528	1.2	58	100	1.3
80845	1321	1.2	52	80	1.1	960	.3	110	30	.5	1740	1.2	47	80	1.1					
80846	932	.5	27	60	.5	495	.1	127	30	.1	883	.5	27	60	.5					
80847	3948	.0	125	500	.0	2199	.0	117	250	.0	1174	.0	152	140	.0	663	.0	335	80	.0
80848	3270	2.7	53	180	2.8	653	.3	255	50	.3	3310	3.0	41	180	3.0	2869	2.8	130	200	2.8
80849	210	.0	54	20	.0	250	.0	119	40	.1	88	.0	71	20	.0	91	.0	176	20	.0
80850	305	.0	76	30	.0	137	.0	171	20	.0	339	.0	101	40	.0					
80851	384	.1	8	40	.1	96	.0	23	30	.0	313	.1	8	40	.1	298	.1	6	40	.1

TABLE 5.10-10 FOUR MODE TEST RESULTS (PORTLAND FLEET)

EPA NO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	------2500 RPM------ ----LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE IN GEAR---- ----LAB---- HC	CO	NOX	GARAGE HC	CO
60901	1465	.0	26	200	.0	4500	.1	291	520	.1	1893	.1	24	350	.2	645	.0	64	100	.0
60902	770	.0	29	80	.0	980	1.8	81	30	1.7	400	.3	9	20	.3	262	.2	4	20	.2
60903	3517	1.7	36	220	1.6	357	.0	226	20	.0	3167	2.5	29	180	2.4	2896	2.6	54	200	2.4
60904	1547	.2	49	90	.2	4570	3.7	56	220	3.8	923	.0	54	60	.1	1046	.0	81	80	.1
60905	8904	1.5	28	820	1.5	983	.0	121	120	.0	8503	1.8	33	720	2.1	4964	2.4	33	400	2.5
60906	801	.0	64	80	.0	1373	.3	219	100	.4	761	.1	36	80	.0	284	.0	189	20	.0
60907	5616	4.4	58	340	4.3	3210	1.5	397	140	1.7	6428	4.6	58	460	4.4	5916	4.8	48	440	4.7
60908	160	.0	61	20	.0	414	.0	128	80	.0	111	.0	68	20	.0	102	.0	190	20	.0
60909	2450	2.0	29	170	1.7	495	.0	129	60	.1	388	.0	141	40	.0	339	.0	46	40	.0
60910	772	.6	58	60	.7	387	.2	372	30	.2	751	.6	56	70	.7					
60911	968	.6	53	80	.6	457	.1	185	40	.1	830	.5	43	80	.5					
60912	228	.0	41	20	.0	154	.0	81	20	.0	215	.0	48	30	.0	234	.0	61	20	.0
60913	6348	4.4	51	390	4.3	2238	1.6	165	140	1.8	5916	4.2	51	380	4.2	4363	4.8	51	330	4.6
60915	2541	1.5	21	140	1.4	639	.2	129	60	.2	2193	1.5	24	120	1.4	2217	1.6	29	160	1.6
60917	555	.0	53	90	.0	882	.8	178	70	1.0	482	.0	61	90	.0	289	.0	73	60	.0
60919	515	.0	61	60	.0	114	.0	327	20	.0	417	.0	71	60	.0	188	.0	103	30	.0
60920	1673	.0	39	210	.0	467	.0	114	60	.0	1275	.1	36	140	.2	761	.1	51	100	.1
60921	372	.0	26	60	.0	106	.0	124	20	.0	192	.0	54	20	.0	1107	.2	69	40	.0
60923	1887	.0	39	280	.0	262	.0	271	20	.0	770	.0	41	120	.0	434	.0	54	60	.0
60924	530	.1	36	60	.1	90	.1	123	40	.1	436	.1	51	60	.1	634	.1	83	80	.1
60925	1060	.3	31	90	.3	130	.0	307	30	.0	1103	.5	46	80	.6	1295	.4	61	120	.4
60926	6518	2.6	16	490	2.5	423	.0	143	60	.0	5977	2.7	23	430	2.6	4292	3.0	16	320	2.6
60927	1514	.1	91	140	.1	587	.0	795	50	.1	678	.0	111	80	.0	706	.0	291	80	.0
60928	283	.0	33	50	.0	56	.0	143	20	.0	93	.0	51	30	.0	75	.0	91	30	.0
60929	307	.2	33	40	.2	607	.8	83	50	.9	423	.2	33	50	.2	567	.2	58	60	.2
60930	6087	3.1	58	430	3.0	1693	.0	138	180	.1	968	.0	203	100	.0	1286	.0	190	150	.0
60931	668	.1	86	60	.1	1219	.1	128	80	.1	986	.1	76	120	.1					
60932	336	.0	41	40	.0	220	.0	483	30	.0	207	.0	49	20	.0	186	.0	91	30	.0
60933	1893	1.7	26	160	1.8	969	.0	151	360	.1	648	.1	54	80	.1	648	.2	46	60	.1
60934	495	.2	39	40	.2	201	.1	79	20	.1	541	.2	36	60	.2					
60935	2045	2.1	58	120	2.2	350	.1	200	40	.1	2097	2.5	56	130	2.6	2020	2.0	81	160	2.1
60936	3821	2.0	48	240	2.0	821	.3	148	80	.4	3069	1.6	53	200	1.8	3089	1.7	73	240	1.7
60937	2590	.4	41	180	.4	975	.0	166	100	.1	2756	1.1	44	180	1.1	1844	.7	114	130	.7
60938	369	.0	49	20	.0	140	.0	318	20	.0	333	.0	61	30	.0	443	.0	81	40	.0
60939	4543	3.6	56	280	3.6	460	.0	113	70	.0	439	.0	103	60	.0	772	1.0	83	90	1.0

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TABLE 5.10-10 FOUR MODE TEST RESULTS (PORTLAND FLEET) CONT'D

EPA NO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	------2500 RPM------ ----LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE IN GEAR---- ----LAB---- HC	CO	NOX	GARAGE HC	CO
60940	1397	1.2	21	80	1.2	541	.8	89	40	.9	1339	1.2	21	100	1.3					
60941	302	.0	31	40	.0	455	.0	136	80	.0	290	.0	41	60	.0					
60942	1498	.4	24	110	.4	226	.4	111	30	.4	1306	.4	26	100	.4					
60943	1565	3.4	36	100	3.3	108	.0	155	30	.0	1341	3.0	46	80	2.8	1341	3.0	48	100	3.0
60944	436	.0	56	40	.0	127	.0	130	20	.0	429	.0	43	50	.0					
60945	201	.0	29	30	.0	189	.0	229	30	.0	180	.0	46	30	.0	351	.0	89	50	.0
60946	633	.0	44	80	.0	409	.0	119	40	.0	602	.0	46	80	.0	167	.0	131	20	.0
60947	1629	.5	48	80	.6	240	.1	225	20	.3	1892	.9	56	90	1.0	1901	.4	116	120	.4
60948	1840	.1	61	140	.2	356	.2	128	40	.2	1188	.2	71	80	.2					
60949	2642	.3	11	300	.3	633	.1	174	60	.1	2902	.6	21	260	.6	2269	1.0	69	200	.9
60950	9999	7.4	21	600	7.4	945	.0	181	100	.0	730	.0	31	70	.0	7808	7.3	11	520	7.2
60951	1421	1.5	53	80	1.5	527	.3	103	60	.4	1418	1.5	53	80	1.5					
60952	5111	2.9	29	360	2.9	883	.1	94	80	.2	1006	.0	24	100	.0	847	.0	71	100	.0
60953	5746	2.6	51	400	2.6	1188	.0	38	120	.0	766	.0	33	100	.0	720	.0	153	100	.0
60954	9999	.8	86	1840	1.0	3260	1.7	273	240	1.9	9999	1.5	78	1600	1.3	9999	.8	183	1320	1.1
80901	5302	3.6	31	260	3.4	571	.0	89	50	.1	495	.0	31	60	.0					
80902	9999	5.4	26	440	5.2	792	.4	101	80	.6	532	.0	26	60	.0					
80903	464	.0	14	50	.0	287	.0	121	40	.0	388	.0	46	50	.0	272	.0	26	30	.0
80904	117	.0	41	40	.0	65	.1	28	40	.1	139	.0	36	50	.0	65	.0	111	40	.0
80906	136	.0	41	30	.0	225	.0	68	20	.0	166	.0	41	30	.0	108	.0	128	20	.0
80907	157	.0	53	20	.0	277	.0	113	40	.0	130	.0	68	20	.0	87	.0	111	20	.0
80908	4192	2.3	28	330	2.2	745	.0	61	120	.0	280	.0	48	50	.0	3230	2.9	33	290	2.8
80909	3457	3.3	19	220	3.2	791	.1	89	200	1.0	3277	3.4	16	200	3.4	2841	3.4	21	210	3.2
80910	382	.0	26	30	.0	198	.0	74	30	.1	112	.0	26	20	.0	91	.0	39	20	.0
80911	295	.0	51	60	.0	191	.0	175	40	.0	200	.0	63	40	.0	105	.0	113	40	.0
80912	504	.0	34	50	.0	874	.8	69	60	.8	394	.0	29	60	.1					
80913	390	.0	56	40	.0	332	.0	108	40	.1	136	.0	61	30	.0	108	.0	150	30	.0
80914	216	.0	39	40	.0	125	.0	226	20	.0	189	.0	61	40	.0	94	.0	171	20	.0
80915	2321	1.3	34	140	1.1	847	.0	820	60	.1	2199	1.4	59	140	1.2	2321	1.5	46	160	1.4
80916	176	.0	68	30	.0	87	.0	173	20	.0	136	.0	68	30	.0	87	.0	135	20	.0

TABLE 5.10-10 FOUR MODE TEST RESULTS (PORTLAND FLEET) CONT'D

EPA NO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	------2500 RPM------ ----LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE IN GEAR---- ----LAB---- HC	CO	NOX	GARAGE HC	CO
80919	571	.0	26	40	.0	308	.0	12[illegible]	30	.0	418	.0	54	60	.0	128	.0	71	20	.0
80920	127	.0	53	40	.0	1158	.0	9[illegible]	160	.0	148	.0	58	40	.0	87	.0	68	40	.0
80921	587	1.1	41	40	1.0	201	.2	49	20	.2	428	.8	46	40	.9	1449	2.0	31	100	2.0
80923	223	.0	61	40	.0	88	.0	258	20	.0	180	.0	64	30	.0	125	.0	101	30	.0
80924	5195	.2	48	460	.2	791	.0	22[illegible]	80	.1	414	.0	61	60	.0	313	.0	98	60	.0
80925	530	.0	51	100	.0	209	.0	13[illegible]	70	.1	292	.0	56	50	.0	237	.0	103	60	.0
80926	400	.0	49	60	.0	88	.0	164	20	.1	1342	.3	36	110	.3	323	.0	26	40	.0
80927	280	.0	23	50	.0	723	.3	278	60	.3	93	.0	28	20	.0	56	.0	56	20	.0
80928	418	.6	39	40	.6	122	.3	94	20	.3	342	.6	24	40	.6					
80929	154	.0	76	40	.0	200	.0	133	40	.0	142	.0	86	40	.0	111	.0	529	40	.0
80930	1984	.4	73	140	.5	3310	.3	283	250	.3	2045	.4	68	140	.5					
80931	1096	.0	48	110	.1	729	.6	133	40	.8	598	.0	63	60	.0	821	.0	118	80	.0
80932	210	.0	71	20	.0	143	.0	216	20	.0	235	.0	79	30	.0	131	.0	219	20	.0
80933	6174	1.6	19	520	1.5	287	.0	169	20	.0	3277	1.9	54	180	1.9	2713	1.9	126	180	1.9
80934	932	.1	46	120	.1	106	.0	71	20	.0	198	.0	54	20	.0	164	.0	101	20	.0
80935	598	.0	61	80	.0	341	.0	185	60	.0	362	.0	78	70	.0	387	.0	103	70	.0
80936	136	.0	11	20	.0	65	.0	11	20	.0	62	.0	11	20	.0					
80937	4520	.1	59	380	.1	3227	.0	171	450	.1	675	.0	99	80	.0	366	.0	224	40	.0
80938	454	.0	53	40	.0	696	.8	98	30	.8	489	.0	39	40	.0					
80939	3791	.2	68	400	.2	325	.0	205	40	.0	289	.0	78	30	.0	301	.0	195	30	.0
80940	6759	1.1	53	600	1.1	1311	.0	126	130	.1	852	.0	163	120	.0	582	.0	322	80	.0
80941	3838	2.4	26	250	2.3	990	.0	164	120	.1	3848	2.7	11	250	2.7	3217	3.0	26	260	2.8
80942	785	.1	34	60	.1	415	.1	99	40	.1	813	.1	29	80	.2					
80943	1685	.0	64	200	.0	360	.0	590	40	.1	853	.0	94	100	.0	311	.0	261	50	.0
80944	454	.0	68	80	.0	332	.0	302	60	.0	393	.0	88	70	.0					
80947	877	.0	24	70	.0	406	.0	96	30	.0	418	.0	29	40	.0	1887	.7	31	160	.8
80948	2437	2.1	31	120	2.0	418	.1	877	40	.1	2529	2.0	46	140	2.1	2453	2.0	46	180	2.0
80949	1479	.2	41	160	.3	408	.0	208	60	.0	1669	.4	48	140	.4	2274	.4	158	200	.3
80950	3748	1.1	29	250	1.2	2014	.4	84	180	1.0	3217	1.7	21	200	1.6	2964	1.6	54	220	1.7
80951	1648	.1	49	140	.1	1795	.9	176	120	.9	1893	.1	51	170	.1					
80952	259	.0	66	30	.0	1489	.0	69	160	.0	174	.0	66	20	.0	97	.0	189	10	.0
80953	1312	.0	49	120	.0	296	.0	176	20	.0	1039	.0	51	120	.0	391	.0	89	50	.0
80954	4420	3.0	34	300	2.9	457	.0	160	60	.0	412	.0	41	40	.0	1985	1.7	31	200	1.4
80955	889	.0	59	90	.0	816	.1	303	80	.1	538	.0	91	70	.0	418	.0	266	60	.0
80956	1402	.6	58	60	.8	3089	.4	98	240	.5	2259	.1	78	200	.1					

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TABLE 5.10-11 FOUR MODE TEST - SPARK PLUG DISABLED (VANCOUVER FLEET)

EPA NO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	------2500 RPM------ ----LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE IN GEAR---- ----LAB---- HC	CO	NOX	GARAGE HC	CO
60801	9999	.9	17	1650	.9	9999	.3	107	1920	.3	9999	.8	37	1840	.8					
60802	9999	2.8	16	1560	2.7	9999	.1	278	1620	.2	9999	3.1	28	1650	2.9	9999	3.4	23	1730	3.0
60803	4012	.0	18	400	.0	7831	.1	121	860	.1	3220	.0	33	340	.0	1718	.0	81	180	.0
60804	9532	.0	32	940	.1	9999	.1	52	1560	.1	9999	.0	50	1180	.1					
60805	9999	3.5	31	1810	3.4	9999	.2	128	1370	.2	9999	3.6	43	1920	3.6	9999	3.8	46	2000	3.6
60806	9999	1.5	53	2000	1.6	9999	.8	165	2000	.9	9999	1.5	56	2000	1.6					
60807	5262	.0	85	640	.0	9251	.0	302	1090	.0	5502	.0	110	770	.0					
60808	9999	4.4	53	2000	4.6	9999	.2	61	1340	.2	5876	.0	38	550	.0	1295	.0	61	120	.0
60809	3280	1.4	46	180	1.6	1439	1.1	128	70	1.3	2909	1.5	56	150	1.8	3470	1.7	103	240	1.8
60810	9999	4.6	10	2000	4.3	7407	.0	247	300	.1	9999	5.6	20	2000	5.2	9999	5.7	10	2000	5.3
60811	1000	.0	52	140	.0	2138	.0	137	270	.0	128	.0	70	20	.0	91	.0	95	20	.0
60812	9999	3.2	15	1800	3.0	5121	.0	284	610	.1	9999	4.8	22	1800	4.4	9999	5.1	15	1730	4.6
60813	555	.0	33	70	.0	2030	.0	193	260	.0	555	.0	33	60	.0	423	.0	63	40	.0
60814	9662	.1	32	1000	.1	2746	.0	232	400	.0	9492	.5	40	1000	.5	9999	.6	50	1150	.4
60815	2092	.0	35	360	.0	8259	.2	154	900	.2	7166	.1	55	870	.1	7808	.1	110	990	.1
60816	9997	1.9	46	1660	2.1	8723	.1	143	880	.2	9997	1.0	38	1500	1.2	9997	.6	43	1540	.7
60817	9997	1.2	41	1700	1.4	7701	.0	210	1080	.0	9997	1.3	36	1640	1.5	9997	1.2	46	1800	1.4
60818	7099	.1	33	940	.1	5776	.1	776	780	.1	4413	.1	48	600	.1	3871	.0	86	530	.0
60819	9999	2.2	26	2000	2.3	9999	.7	93	2000	1.9	9999	1.9	53	2000	2.0					
60820	9999	2.5	46	2000	2.4	9999	.1	233	1880	.2	9999	2.7	73	2000	2.5	9999	2.8	61	2000	2.6
60821	3130	.0	48	460	.0	5395	.0	86	680	.0	2187	.0	58	300	.0	1746	.0	138	240	.0
60822	9999	.6	56	1760	.6	9999	.1	589	1800	.0	4543	.0	53	560	.0	4643	.0	128	480	.0
60823	9999	.1	121	1580	.1	8162	.1	604	900	.1	2198	.0	135	200	.0	1861	.0	220	190	.0
60824	9999	3.9	31	2000	3.8	9999	.2	385	1450	.2	9999	3.4	53	1880	3.2	9999	3.7	48	1980	3.4
60825	9997	8.1	11	2000	7.4	9997	.0	143	1200	.1	8312	.0	53	1180	.0	9997	.0	48	900	.0
60826	9999	.5	53	1250	.6	9999	.1	278	900	.2	7350	.2	61	790	.3	6969	.2	302	780	.2
60827	5616	.0	28	750	.0	9325	.1	265	1200	.1	5997	.0	46	820	.0	5616	.0	53	770	.0
60828	9999	2.1	31	1630	2.1	8302	.0	210	1050	.1	9999	2.7	43	1650	2.7	9999	2.6	31	1810	2.6
60829	4794	.1	73	620	.1	5646	.0	135	650	.0	5886	.4	98	730	.6	5786	.9	190	510	.9
60830	9997	4.8	61	2000	4.8	2798	.0	203	1280	.1	6197	.0	150	800	.0	4894	.0	170	720	.0
60831	9375	.1	31	1120	.1	9997	.2	377	1560	.2	9997	.1	73	1280	.1					
60832	9997	4.2	43	2000	4.0	9997	.1	519	1800	.2	9997	1.8	58	2000	2.2	9997	1.5	71	2000	1.6
60833	8884	1.1	36	1090	1.2	5465	.0	103	660	.1	9455	1.4	51	1180	1.6	9999	1.6	71	1040	1.5
60834	9999	1.8	40	1500	1.6	9999	2.3	37	1700	2.2	9201	.1	105	1100	.2	8810	.1	346	1000	.1
60835	1555	.0	48	200	.0	2889	.0	220	330	.0	1274	.0	86	180	.0	1194	.0	158	170	.0

TABLE 5.10-11 FOUR MODE TEST - SPARK PLUG DISABLED (VANCOUVER FLEET) (CONT'D)

	----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
	----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60836	9999	3.6	28	1760	3.6	9999	.4	101	1560	.8	9999	3.1	33	1830	3.2	9999	2.5	38	1900	2.5
60837	9999	.1	52	2000	.1	5903	.0	334	750	.0	9999	1.1	52	1200	1.0	9999	1.0	55	1600	1.0
60838	9999	.1	53	1540	.1	9999	.1	225	1580	.1	9999	.1	101	1680	.1	9999	.1	370	1760	.1
60839	9999	.5	28	1250	.6	9999	3.6	143	1830	3.4	9999	1.5	31	1230	1.6	9999	1.1	58	1180	1.2
60840	9999	3.4	25	1150	3.2	9999	.2	259	1000	.2	9999	3.3	32	1200	3.2	9999	3.4	30	1400	3.2
60841	9999	3.3	48	1940	3.1	9999	1.3	744	1680	1.4	9999	.2	68	1140	.2	9999	2.5	58	1900	2.5
60843	9999	.3	133	1640	.3	9999	.5	91	1860	.6	9999	.9	135	2000	.9					
60844	415	.0	21	80	.0	1431	.0	403	200	.0	403	.0	44	70	.0	293	.0	66	50	.0
60845	9999	1.1	44	1390	1.1	8981	.0	131	1010	.1	4801	.0	144	580	.0	5663	.0	149	700	.0
60846	9999	.5	33	1320	.6	9999	.1	205	1320	.2	9999	.6	58	1400	.7	9999	.5	46	1410	.6
60847	5937	.0	28	1000	.0	4423	.0	81	750	.0	677	.0	58	100	.0					
60848	9999	.2	23	1760	.2	9999	.1	223	2000	.1	9999	.2	33	1900	.2					
60849	2205	.0	21	300	.0	6324	.1	146	750	.0	2297	.0	44	310	.0	1688	.0	109	220	.0
60850	9999	3.6	21	2000	3.5	9999	1.0	96	2000	1.0	9999	3.7	24	2000	3.5					
60851	9999	3.1	26	1760	3.3	1985	.0	505	840	.0	3668	.0	41	440	.0	9999	2.9	41	970	2.9
80801	4794	.0	31	780	.0	5165	.0	76	700	.0	1586	.0	36	220	.0					
80802	146	.0	37	20	.0	792	.0	189	120	.0	85	.0	45	10	.0	73	.0	60	10	.0
80803	9997	.2	26	2000	.2	6628	.0	215	900	.0	1525	.0	36	200	.0					
80804	9999	.0	72	1250	.0	9999	.0	49	1000	.0	730	.0	105	100	.0	455	.0	252	70	.0
80805	9999	.2	28	1560	.2	7119	.0	130	960	.0	9999	.6	33	1560	.7	9999	.5	43	1540	.6
80806	8941	.1	22	1060	.1	5803	.0	70	780	.0	6525	.2	22	760	.1	8510	.3	42	1140	.2
80807	847	.0	92	110	.0	2128	.0	212	260	.0	1755	.1	52	250	.1	1933	.1	187	230	.1
80808	213	.0	82	30	.0	767	.0	152	80	.0	158	.0	102	20	.0	125	.0	147	20	.0
80809	9999	.1	28	1800	.1	9999	.1	83	2000	.1	9999	.1	53	1980	.1					
80810	272	.0	70	40	.0	862	.0	169	120	.0	88	.0	82	20	.0	57	.0	167	10	.0
80811	975	.0	52	140	.0	4400	.0	598	580	.0	431	.0	107	60	.0	308	.0	177	40	.0
80812	356	.0	53	50	.0	867	.0	130	120	.0	237	.0	91	20	.0	163	.0	205	20	.0
80813	1929	.0	56	270	.0	9997	.1	582	1170	.1	2548	.0	108	320	.0	1746	.0	210	220	.0
80814	798	.0	45	110	.0	1434	.0	227	220	.0	434	.0	105	70	.0					
80815	6117	4.4	26	2000	4.4	8002	.0	218	390	.0	9997	.2	43	1050	.3	3250	1.7	33	1970	1.6

TABLE 5.10-11 FOUR MODE TEST - SPARK PLUG DISABLED (VANCOUVER FLEET) (CONT'D)

	----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
	----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
80816	7200	.0	56	1000	.0	9997	.0	243	1630	.0	7300	.0	78	1000	.0					
80817	158	.0	57	20	.0	709	.0	125	100	.0	152	.0	57	20	.0	94	.0	179	20	.0
80818	128	.0	57	20	.0	908	.0	277	120	.0	235	.0	82	20	.0	134	.0	174	20	.0
80819	9999	1.5	30	950	1.6	9999	.2	404	990	.3	9999	1.4	45	1150	1.4	9999	.8	47	1200	.9
80820	366	.0	47	50	.0	1058	.0	229	150	.0	250	.0	57	30	.0	201	.0	80	30	.0
80821	9997	2.1	53	1900	2.3	9997	.1	288	1700	.1	9997	.1	46	1800	.2	9997	.3	48	1650	.3
80822	9999	.1	50	1120	.1	9999	.3	262	1340	.3	5222	.0	87	580	.0	1379	.0	32	550	.0
80823	1341	.0	48	220	.0	3120	.0	140	470	.0	754	.0	61	120	.0	1993	.0	173	110	.0
80824	9999	.0	33	1620	.0	9999	.9	111	2000	1.0	9999	.0	41	1800	.0					
80825	9997	.2	33	1440	.3	4473	.0	220	580	.0	9997	.6	43	1400	.9	9997	.8	53	1620	.6
80826	310	.0	76	50	.0	977	.0	255	150	.0	286	.0	98	40	.0	197	.0	367	40	.0
80827	9997	2.2	43	1780	2.2	2488	.0	128	320	.0	846	.0	81	100	.0	999	.0	178	120	.0
80828	3771	.0	133	600	.0	3551	.0	78	560	.0	1739	.0	78	250	.0	1280	.0	427	200	.0
80829	4002	.0	56	580	.0	3992	.0	223	600	.0	815	.0	83	100	.0	800	.0	153	100	.0
80830	1311	.0	78	210	.0	3009	.0	195	480	.0	466	.0	133	80	.0	341	.0	302	60	.0
80831	9997	2.3	31	1800	2.5	1158	.0	126	100	.1	555	.0	81	40	.0	705	.0	98	60	.0
80832	9999	5.7	23	2000	6.1	9999	.1	776	1470	.2	9999	1.5	48	1760	1.7	9999	4.4	23	1720	4.6
80833	1840	.1	6	230	.1	1984	.0	126	290	.0	2749	.5	26	380	.6	2198	.3	38	300	.3
80834	974	.0	56	160	.0	1993	.0	427	320	.0	301	.0	121	60	.0	194	.0	462	40	.0
80835	1785	.0	48	240	.0	2548	.0	158	360	.0	408	.0	71	60	.0	329	.0	155	50	.0
80836	1638	.0	245	260	.0	3541	.0	310	600	.0	417	.0	113	60	.0	225	.0	694	40	.0
80837	5666	.1	31	670	.2	6338	.1	190	750	.2	8353	.3	31	1000	.3	6478	.2	71	830	.2
80839	3778	.0	117	530	.0	6404	.0	117	850	.0	2254	.0	154	320	.0	1520	.0	526	200	.0
80840	3317	.0	27	400	.0	2796	.0	326	400	.0	2557	.1	57	350	.1	1979	.1	77	350	.0
80841	740	.0	27	100	.0	1771	.0	556	220	.0	409	.0	35	60	.0	400	.0	32	60	.0
80842	9999	1.1	73	2000	1.2	9999	.5	312	1420	.6	9999	.4	73	1360	.4					
80843	9999	.0	30	1200	.0	9999	.1	187	1740	.1	9999	.0	30	1320	.1					
80844	9999	6.5	26	2000	6.4	9999	.3	63	1800	.4	9999	4.6	31	2000	4.6	9999	5.6	26	2000	6.0
80845	9999	.7	32	1800	.7	9999	.3	77	2000	.3	9999	.9	45	2000	.8					
80846	9999	.5	22	1480	.5	9999	.1	197	1920	.1	9999	.4	35	1640	.4					
80847	893	.0	127	90	.0	3868	.0	102	580	.0	669	.0	152	100	.0	284	.0	384	30	.0
80848	9999	1.8	26	1750	1.8	9999	.2	609	1900	.3	9999	1.6	53	2000	1.7	9999	1.8	78	2000	1.9
80849	119	.0	69	20	.0	366	.0	301	40	.1	88	.0	166	20	.0	57	.0	271	20	.0
80850	1434	.0	31	220	.0	2156	.0	146	260	.0	920	.0	26	210	.0					
80851	891	.0	6	140	.0	983	.0	36	180	.0	769	.0	8	130	.0	784	.0	8	120	.0

TABLE 5.10-12 FOUR MODE TEST - SPARK PLUG DISABLED (PORTLAND FLEET)

EPA NO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	------2500 RPM------ --LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE NEUTRAL---- ----LAB---- HC	CO	NOX	GARAGE HC	CO	----IDLE IN GEAR---- ----LAB---- HC	CO	NOX	GARAGE HC	CO
60901	871	.0	24	120	.0	2291	.0	271	280	.0	975	.0	24	140	.0	639	.0	69	100	.0
60902	1630	.0	14	200	.0	8309	.5	91	860	.5	3798	.1	26	500	.1	4299	.1	39	550	.1
60903	9999	1.5	34	1140	1.6	9999	.2	41	940	.2	9999	2.0	41	1160	2.0	9999	1.7	56	1330	1.6
60904	8660	.1	49	850	.1	9999	4.1	46	1420	4.0	8810	.1	61	920	.1	9442	.0	89	980	.0
60905	9999	.4	13	1500	.4	6047	.0	123	800	.0	9999	.7	28	1540	1.0	9999	.9	26	1600	1.0
60906	3738	.0	74	420	.0	5502	.1	381	580	.1	2395	.0	79	360	.0	1195	.0	253	140	.0
60907	9999	3.8	53	2000	3.8	9999	.5	362	1840	.8	9999	1.0	61	2000	1.2	9999	1.0	43	2000	1.1
60908	2468	.0	46	320	.0	3370	.0	153	420	.0	1121	.0	68	140	.0	769	.0	195	100	.0
60909	9999	1.8	44	1440	1.5	4971	.0	229	540	.1	4380	.0	51	550	.0	4580	.0	91	600	.0
60910	9999	1.0	31	1820	1.0	9999	.1	317	2000	.1	9999	.8	46	1890	.9					
60911	9999	.4	31	1950	.5	9999	.1	190	2000	.1	9999	.4	29	2000	.4					
60912	8703	.1	58	1040	.1	6879	.0	135	780	.0	4563	.0	81	540	.0	5145	.0	113	620	.0
60913	9999	3.9	31	1900	3.8	9999	.9	195	1840	1.1	9999	3.2	48	1870	3.2	9999	3.2	43	2000	3.2
60915	9999	.4	19	1220	.5	9999	.1	136	1090	.2	9999	.3	21	1080	.3	9999	.3	19	1150	.3
60917	540	.0	28	110	.0	1733	.0	155	280	.0	341	.0	43	80	.0	240	.0	48	60	.0
60919	601	.0	36	100	.0	1494	.0	263	220	.0	316	.0	51	50	.0	200	.0	73	40	.0
60920	3247	.0	26	450	.0	4700	.0	119	550	.0	1679	.1	41	210	.0	1281	.0	66	140	.0
60921	9999	.1	31	1100	.1	9999	.1	131	1200	.1	9999	.1	39	1100	.1	9683	.0	116	1060	.1
60923	3137	.0	21	480	.0	5161	.0	441	580	.0	1312	.0	46	250	.0	987	.0	56	120	.0
60924	8543	.2	78	1000	.2	9175	.1	88	1040	.1	8683	.1	53	1020	.2	8984	.1	91	1050	.1
60925	9999	1.5	26	1080	1.5	7140	.3	140	840	.4	2939	.0	31	400	.1	3190	.0	38	440	.0
60926	9999	2.0	8	1220	1.9	4874	.0	170	540	.0	9999	2.1	23	1140	2.0	9999	2.2	18	1240	2.1
60927	9999	.1	126	1300	.1	9999	.1	431	1660	.1	7447	.0	171	940	.0	9131	.0	413	1100	.0
60928	7180	.1	31	780	.1	6528	.2	160	620	.2	1433	.0	61	200	.0	983	.0	101	150	.0
60929	3811	.1	31	460	.1	6979	.2	81	810	.2	5004	.1	33	600	.1	5355	.1	56	620	.1
60930	9999	3.1	53	1740	3.1	8874	.0	121	1120	.1	5495	.0	178	730	.0	5997	.0	138	830	.0
60931	9999	.1	76	2000	.1	9999	.1	103	2000	.1	9999	.1	73	2000	.1					
60932	1098	.0	41	160	.0	3989	.0	164	500	.0	758	.0	59	120	.0	822	.0	116	120	.0
60933	4380	.1	41	520	.1	6304	.0	221	720	.0	3327	.0	51	400	.1	3868	.1	71	440	.1
60934	9999	.5	24	1760	.5	9999	.1	149	1910	.2	9999	.4	31	1970	.5					
60935	7250	.5	23	820	.6	5295	.0	126	660	.0	7079	.6	33	860	.6	5345	.2	26	700	.2
60936	9999	.2	33	1360	.2	9335	.4	160	1060	.5	9999	.2	38	1340	.2	9999	.2	53	1620	.3
60937	9999	.3	26	1100	.3	6906	.0	226	820	.1	8209	.2	29	1050	.3	6134	.2	79	790	.2
60938	798	.1	39	40	.1	4470	.0	401	500	.0	1569	.0	61	200	.0	893	.1	96	70	.1
60939	9094	1.4	28	1050	1.5	3861	.0	56	540	.0	2909	.0	41	420	.0	2608	.3	43	370	.2

TABLE 5.10-12 FOUR MODE TEST - SPARK PLUG DISABLED (PORTLAND FLEET) CONT'D

	----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
	----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60940	9999	.7	16	1490	.8	9999	.6	94	2000	.6	9999	.7	24	1580	.6					
60941	883	.0	26	170	.0	3477	.0	234	540	.0	853	.0	64	140	.0					
60942	9999	.2	21	1920	.2	9999	.6	136	2000	.7	9999	.3	26	2000	.2					
60943	9999	.7	26	1080	.8	3962	.0	133	460	.0	9104	1.1	31	1040	1.1	9355	1.1	41	1120	1.1
60944	4924	.0	31	700	.1	9004	.1	280	1100	.1	5776	.0	33	800	.0					
60945	4219	.0	31	600	.0	7888	.0	456	1000	.0	4400	.0	41	620	.0	4500	.0	54	600	.0
60946	9999	.1	47	1820	.1	9011	.2	121	820	.2	5683	.0	44	740	.0	3126	.0	146	400	.0
60947	9999	.3	43	1060	.3	9999	.2	240	1100	.2	9255	.3	53	980	.4	8734	.2	106	940	.2
60948	9999	.1	78	1950	.1	9999	.1	78	2000	.2	9999	.1	78	2000	.2					
60949	3959	.1	9	510	.1	4269	.0	174	540	.1	3999	.2	19	510	.2	5633	.2	49	720	.2
60950	9999	6.9	11	1960	6.8	8670	.0	191	1100	.1	3197	.0	29	360	.0	9999	5.6	14	1020	5.8
60951	9999	.9	33	2000	1.0	9999	.1	195	2000	.1	9999	1.1	43	2000	1.2					
60952	9999	2.3	43	2000	2.3	9999	.3	166	1450	1.2	5502	.0	26	720	.0	2375	.0	121	400	.0
60953	9999	.7	61	2000	.8	4012	.0	133	440	.0	2284	.0	53	330	.0	1923	.0	307	300	.0
60954	9999	.2	113	2000	.3	9999	.6	245	1960	.8	9999	.2	138	2000	.2	9999	.1	283	2000	.1
80901	9999	3.0	24	2000	2.9	9999	.1	256	1980	.2	3227	.0	29	400	.0					
80902	9999	5.2	26	2000	5.0	9999	.5	176	2000	.6	9999	1.5	36	2000	1.4					
80903	216	.0	0	30	.0	822	.0	151	110	.0	177	.0	24	20	.0	125	.0	39	20	.0
80904	273	.0	31	50	.0	1317	.1	53	190	.1	3811	.4	26	580	.4	3811	.3	61	580	.3
80906	5064	.0	48	600	.0	9355	.1	537	1100	.1	7901	.1	58	920	.1	7921	.0	185	920	.1
80907	558	.0	28	90	.0	1617	.0	81	240	.0	338	.0	43	50	.0	234	.0	73	40	.0
80908	9999	2.4	28	1200	2.4	4112	.0	58	550	.0	1084	.0	36	100	.0	8683	1.5	28	1000	1.4
80909	9999	3.0	19	1650	2.8	9999	.1	101	1200	.1	9999	2.2	19	1520	2.2	9999	2.1	19	1580	2.1
80910	379	.0	21	60	.0	501	.0	271	80	.0	122	.0	26	20	.0	88	.0	34	20	.0
80911	1130	.0	33	170	.0	2657	.0	253	340	.0	1219	.0	61	170	.0	999	.0	173	150	.0
80912	9442	.0	21	1240	.0	9999	.5	126	2000	.5	737	.0	46	1050	.0					
80913	9999	.1	61	1180	.1	5997	.0	208	300	.1	570	.0	83	70	.0	402	.0	205	60	.0
80914	914	.0	39	140	.0	1749	.0	241	300	.0	333	.0	64	60	.0	244	.0	191	40	.0
80915	4730	.0	46	640	.0	4500	.0	331	800	.0	2566	.1	51	310	.2	2465	.2	39	330	.2
80916	289	.0	33	50	.0	1096	.0	130	180	.0	139	.0	53	30	.0	87	.0	98	20	.0

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TABLE 5.10-12 FOUR MODE TEST - SPARK PLUG DISABLED (PORTLAND FLEET) CONT'D

	----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
	----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
80919	935	.0	26	140	.0	1624	.0	151	200	.0	767	.0	46	120	.0	620	.0	91	100	.0
80920	1409	.0	31	220	.0	5415	.0	63	720	.0	830	.0	56	160	.0	567	.0	58	100	.0
80921	9999	1.5	31	1460	1.6	9999	.5	301	1350	.6	9999	1.5	54	1420	1.6	9999	1.6	39	1580	1.6
80923	2636	.0	44	360	.0	5783	.0	278	720	.1	1872	.0	56	350	.0	1125	.0	141	170	.0
80924	9999	.1	51	1520	.1	9999	.2	170	1540	.2	1776	.0	71	180	.0	1158	.0	148	130	.0
80925	8984	.3	23	1040	.4	9325	.3	51	1120	.3	6979	.1	26	850	.1	4513	.1	26	680	.1
80926	813	.0	39	120	.0	2413	.0	301	340	.0	2138	.1	36	300	.1	559	.0	91	80	.0
80927	778	.0	23	110	.0	4563	.0	479	560	.0	350	.0	31	60	.0	157	.0	43	40	.0
80928	9999	.9	11	1600	1.0	9999	.1	216	1880	.1	9999	.9	19	1770	.9					
80929	567	.0	96	100	.0	2342	.0	210	360	.0	521	.0	123	100	.0	399	.0	557	80	.0
80930	9999	.3	48	2000	.3	9999	.2	402	2000	.2	9999	.2	78	2000	.2					
80931	2789	.0	73	420	.0	3861	.0	145	560	.0	1647	.0	86	230	.0	1286	.0	253	190	.0
80932	1076	.0	64	120	.0	3598	.0	343	410	.0	1725	.0	51	220	.1	1091	.0	266	130	.0
80933	9512	.1	29	1160	.1	4299	.0	251	580	.0	8309	.3	49	1040	.3	7457	.2	51	990	.3
80934	9999	1.5	21	2000	1.6	3698	.0	84	400	.0	1153	.0	29	120	.0	801	.0	56	70	.0
80935	2528	.0	53	360	.0	3079	.0	223	420	.0	1418	.0	78	220	.0	1326	.0	96	230	.0
80936	910	.0	11	130	.0	2256	.0	21	270	.0	1100	.0	13	140	.0					
80937	9999	.2	79	1320	.2	3297	.0	179	400	.0	837	.0	114	80	.0	516	.0	378	50	.0
80938	9999	.1	63	1900	.1	9999	1.1	183	2000	1.2	9999	.2	53	2000	.2					
80939	9999	.1	48	1320	.1	3541	.0	138	440	.0	693	.0	73	60	.0	622	.0	238	60	.0
80940	9999	.8	61	1530	1.0	9999	.1	135	1200	.2	3190	.0	198	340	.0	1849	.0	417	230	.0
80941	9231	.1	2	1050	.1	1960	.0	286	240	.0	8399	1.0	6	1020	.7	9472	1.0	51	1200	.9
80942	9999	.1	21	1320	.1	9999	.1	166	1780	.1	9999	.1	31	1480	.1					
80943	9999	.1	64	1630	.1	9999	.2	703	2000	.2	9999	.1	91	1650	.1	9999	.0	229	1380	.0
80944	7160	.0	56	960	.0	9999	.0	487	1740	.0	7701	.0	88	970	.0					
80947	3016	.3	21	420	.3	654	.0	96	100	.0	1786	.2	24	200	.2	2627	.4	26	300	.4
80948	6785	.1	11	840	.1	7287	.0	32	1000	.1	7968	.4	39	1320	.4	7708	.2	61	1040	.2
80949	4102	.0	28	520	.0	7621	.0	345	1020	.0	4192	.1	28	580	.0	5947	.1	53	770	.0
80950	2675	.0	0	380	.0	1623	.0	121	220	.1	3227	.2	19	400	.2	3377	.2	86	450	.2
80951	155	.0	21	20	.0	495	.0	333	50	.0	97	.0	51	20	.0					
80952	516	.0	46	70	.0	3026	.0	89	360	.0	259	.0	84	40	.0	6755	.8	76	800	.8
80953	3157	.0	46	420	.0	5422	.1	229	610	.1	3016	.0	51	390	.0	2896	.0	106	360	.0
80954	9999	2.6	29	1440	2.4	4149	.0	166	1100	.1	1000	.0	36	100	.0	1740	.4	24	170	.2
80955	623	.0	94	100	.0	4099	.0	299	600	.0	648	.0	211	100	.0	461	.0	660	80	.0
80956	9999	.2	78	1460	.2	9999	.3	143	1680	.3	9999	.1	96	1700	.2					

TABLE 5.10-13 FOUR MODE TEST - GASOHOL (VANCOUVER FLEET)

	----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
	----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60801	1887	.5	17	160	.4	1030	.1	87	90	.1	1058	.5	35	100	.4					
60802	5626	3.4	18	320	3.4	867	.1	248	40	.2	4102	3.1	28	250	3.1	2969	3.0	26	220	2.9
60803	1127	.1	16	50	.1	2137	.2	101	110	.2	980	.1	31	50	.1	414	.0	86	10	.0
60804	1556	.1	37	120	.0	730	.1	62	70	.1	651	.1	32	60	.1					
60805	8012	3.8	31	540	3.8	1176	.1	260	90	.1	6608	3.1	48	480	3.2	5776	3.3	51	460	3.2
60806	1274	1.8	53	70	1.9	1087	.8	128	60	.8	1861	2.3	58	90	2.4					
60807	859	.0	35	80	.0	577	.0	234	40	.0	434	.0	82	40	.0					
60808	5656	4.2	58	390	4.2	797	.1	78	80	.1	864	.0	48	80	.0	576	.0	86	60	.0
60809	3771	.7	31	230	.8	1405	.6	128	80	.7	1500	.3	48	100	.4	1204	.1	78	100	.1
60810	9999	5.3	53	1950	4.8	309	.0	159	250	.1	9999	6.0	20	1500	5.4	9999	6.3	12	1390	6.0
60811	82	.0	27	10	.0	363	.0	132	40	.0	48	.0	50	10	.0	27	.0	52	10	.0
60812	9999	4.8	20	880	4.2	1098	.0	307	100	.1	9999	5.6	87	600	5.0	6625	5.7	27	400	5.1
60813	1901	.0	61	220	.0	1571	.0	138	180	.0	723	.0	61	80	.0	411	.0	126	60	.0
60814	6004	1.7	27	450	1.6	4500	.1	132	500	.1	4991	1.8	42	390	1.6	1003	1.4	57	280	1.0
60815	2162	.1	30	220	.1	1312	1.0	130	50	1.0	853	.1	42	50	.1	400	.0	72	30	.0
60816	9104	2.0	28	800	2.0	2989	.1	111	270	.2	7220	1.4	43	650	1.2	3992	1.3	43	300	1.5
60817	1604	1.0	51	120	1.2	246	.0	160	40	.0	1546	1.6	56	110	1.8	1690	1.4	76	140	1.6
60818	5876	.1	26	760	.1	913	.1	113	140	.1	3470	.1	36	480	.1	1816	.0	41	250	.1
60819	2513	2.4	28	140	2.4	393	.2	126	20	.2	2724	2.4	38	170	2.5					
60820	3160	1.6	33	220	1.6	607	.1	255	110	.2	2724	1.7	58	200	1.7	2626	1.6	66	200	1.7
60821	3350	.0	33	420	.0	631	.0	83	60	.1	1035	.0	56	140	.0	332	.0	31	40	.0
60822	2593	.8	53	130	.8	668	.1	626	70	.1	2247	.7	76	150	.8	2241	.4	143	170	.4
60823	4052	.1	86	450	.1	913	.1	162	90	.2	729	.0	103	80	.0	735	.0	138	120	.0
60824	9405	1.4	31	660	3.5	1421	.1	330	100	.2	6999	3.0	53	470	2.7	6217	2.8	58	470	2.8
60825	9997	8.5	28	530	8.2	4543	.0	138	500	.1	1555	.0	53	180	.0	1213	.0	53	100	.0
60826	4894	.5	43	310	.6	9999	.2	253	2000	.2	1840	.0	61	200	.0	735	.0	175	60	.0
60827	117	.0	28	40	.0	56	.0	205	20	.0	93	.0	43	30	.0	105	.0	53	40	.0
60828	2381	3.0	33	130	2.9	325	.0	153	30	.1	2651	3.7	51	140	3.6	2550	3.4	51	170	3.3
60829	5345	.1	53	650	.1	3240	.0	183	400	.0	4242	.1	78	560	.2	2210	.7	183	220	.6
60830	5816	2.9	78	380	2.9	1004	.0	452	90	.0	546	.0	317	30	.0	1412	.0	312	150	.0
60831	521	.1	48	20	.1	451	.1	210	20	.2	540	.0	46	30	.1					
60832	9074	5.2	48	600	4.9	3210	.1	347	220	.1	7320	4.9	56	480	4.7	6368	4.7	83	460	4.5
60833	5295	2.7	36	300	2.7	870	.0	101	50	.0	4122	2.1	53	220	2.1	4082	2.2	76	300	1.9
60834	3798	1.0	85	170	1.0	2946	1.1	92	200	1.0	5141	1.5	35	300	1.4	4149	1.3	87	300	1.2
60835	4493	.0	36	500	.1	592	.1	165	50	.1	1831	.0	53	200	.0	387	.0	71	60	.0

TABLE 5.10-13 FOUR MODE TEST - GASOHOL (VANCOUVER FLEET) (CONT'D)

	----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
	----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60836	6167	3.6	33	410	3.4	882	.1	106	80	.1	5967	4.3	43	370	4.0	4994	3.9	51	330	3.7
60837	2358	3.0	27	110	2.8	480	.2	152	30	.4	1875	2.3	42	100	2.2	1966	2.4	47	120	2.2
60838	791	.1	48	60	.1	301	.1	327	40	.1	668	.1	93	60	.1	846	.1	208	60	.1
60839	6729	.8	28	600	.9	3841	4.3	145	180	4.0	6297	1.5	43	500	1.7	3861	1.3	63	300	1.4
60840	9999	2.5	27	900	2.4	9999	.2	202	850	.2	9999	2.2	42	1000	2.2	9999	2.2	45	1220	2.0
60841	9999	6.4	23	640	6.0	3290	2.5	597	160	2.7	5916	4.9	61	360	4.5	4463	5.0	58	300	4.6
60843	1666	1.4	23	110	1.4	760	.1	101	40	.1	1127	.9	33	70	.9					
60844	945	.0	14	160	.0	730	.0	331	60	.0	1795	.0	31	240	.0	480	.0	36	80	.0
60845	3537	1.0	41	220	1.0	2321	.0	104	140	.1	975	.0	124	100	.0	782	.0	139	100	.0
60846	6217	1.6	28	500	1.7	1892	.2	143	140	.2	4032	1.2	48	280	1.3	3290	1.1	58	280	1.2
60847	429	.2	18	40	.2	114	.1	78	20	.1	148	.0	73	20	.0					
60848	1387	.1	28	100	.1	763	.1	128	60	.1	1858	.1	36	160	.1					
60849	2138	.0	19	230	.0	455	.1	149	40	.0	1605	.0	34	130	.0	837	.0	66	90	.0
60850	2392	4.1	26	140	3.9	1902	1.0	139	100	1.0	3217	4.8	36	140	4.6					
60851	3628	2.2	29	220	2.1	372	.0	416	40	.0	596	.0	61	60	.0	2444	2.2	54	200	2.1
80801	625	.2	31	10	.2	791	.8	98	10	.9	870	.4	33	30	.6					
80802	155	.0	17	20	.0	82	.0	97	10	.0	183	.0	35	20	.0	112	.0	25	10	.0
80803	7300	.1	23	940	.1	720	.1	103	90	.1	1298	.0	38	200	.0					
80804	1407	.7	52	90	.7	302	.0	558	40	.0	232	.0	62	40	.0	235	.0	95	40	.0
80805	2871	.2	31	240	.2	240	.0	121	20	.0	2228	.3	46	200	.4	1849	.7	58	130	.8
80806	5121	.1	15	620	.1	1122	.0	142	100	.0	3618	1.1	40	270	1.1	2816	1.0	80	230	1.0
80807	749	.0	45	70	.0	204	.0	179	20	.0	681	.0	92	80	.0	470	.0	321	70	.0
80808	290	.0	60	40	.0	501	.0	189	60	.0	122	.0	97	20	.0	63	.0	207	20	.0
80809	1485	.1	33	150	.1	466	.1	98	60	.2	1207	.1	51	100	.1					
80810	213	.0	57	30	.0	76	.0	157	20	.0	201	.0	80	30	.0	94	.0	157	20	.0
80811	510	.0	37	70	.0	167	.0	69	20	.0	403	.0	95	60	.0	232	.0	85	20	.0
80812	362	.0	36	40	.0	463	.0	103	50	.0	225	.0	66	20	.0	105	.0	113	10	.0
80813	1418	.1	108	80	.1	1684	.2	649	70	.2	1075	.0	81	90	.0	720	.0	63	70	.0
80814	1171	.0	30	170	.0	369	.0	174	60	.0	1382	.0	50	190	.0					
80815	9666	4.2	31	760	4.2	2368	.0	160	240	.0	1139	.0	51	110	.0	5295	3.0	46	500	3.0

TABLE 5.10-13 FOUR MODE TEST - GASOHOL (VANCOUVER FLEET) (CONT'D)

	----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
	----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
80816	628	.1	48	70	.1	371	.0	273	40	.1	601	.0	61	50	.0					
80817	238	.0	47	30	.0	363	.0	70	40	.0	278	.0	50	40	.0	109	.0	92	20	.0
80818	140	.0	32	10	.0	48	.0	139	10	.0	152	.0	52	10	.0	67	.0	65	20	.0
80819	2759	.2	35	200	.2	1544	.2	197	100	.2	2220	.0	42	180	.1	1122	.0	47	90	.0
80820	379	.0	32	60	.0	115	.0	127	60	.0	238	.0	52	40	.0	109	.0	67	20	.0
80821	3290	2.0	56	150	2.0	561	.0	297	20	.1	3741	1.9	61	210	2.2	3571	1.6	73	210	1.8
80822	1914	.0	37	220	.0	510	.1	247	30	.1	935	.0	77	100	.0	473	.0	85	30	.0
80823	1993	.0	31	280	.0	699	.0	168	60	.0	1861	.0	53	220	.0	356	.0	86	50	.0
80824	1779	.1	48	140	.1	1718	1.5	135	100	1.5	1831	.1	53	190	.2					
80825	7350	.5	36	700	.6	907	.0	128	120	.0	6267	.5	51	640	.5	3290	1.1	78	290	1.2
80826	356	.0	43	50	.0	65	.0	123	10	.0	338	.0	71	50	.0	68	.0	145	20	.0
80827	4914	3.0	48	380	3.1	280	.0	106	30	.0	347	.0	123	50	.0	264	.0	188	20	.0
80828	564	.1	28	50	.1	515	.0	56	80	.0	142	.0	58	20	.0	246	.0	372	30	.0
80829	1133	.2	53	60	.2	179	.0	220	20	.0	246	.0	78	20	.0	356	.0	123	20	.0
80830	739	.0	33	100	.0	368	.0	153	40	.0	500	.0	96	80	.0	313	.0	128	50	.0
80831	7601	3.7	28	430	3.8	729	.0	116	80	.0	433	.0	88	40	.0	439	.0	116	40	.0
80832	9999	6.3	16	1100	6.4	1678	.1	577	120	.1	4393	1.4	53	280	1.5	7430	5.6	33	600	5.8
80833	1158	.2	8	130	.2	264	.0	96	40	.0	1136	.5	33	100	.6	234	.0	56	20	.1
80834	307	.0	48	40	.0	1999	.0	278	300	.0	249	.0	63	50	.0	93	.0	188	20	.0
80835	2057	.5	51	180	.7	194	.0	153	30	.0	221	.0	68	30	.0	166	.0	101	20	.0
80836	179	.0	71	20	.0	32	.0	185	20	.0	212	.0	101	20	.0	50	.0	472	20	.0
80837	2697	.3	28	300	.4	1357	.2	116	150	.2	2651	.1	58	360	.2	996	.0	198	200	.1
80839	516	.0	159	30	.0	434	.0	135	40	.0	253	.0	110	20	.0	171	.0	202	20	.0
80840	63	.0	47	20	.0	36	.0	262	20	.0	63	.0	70	20	.0	63	.0	75	20	.0
80841	241	.0	22	10	.0	27	.0	414	0	.0	91	.0	52	10	.0	216	.0	42	20	.0
80842	2433	1.1	73	120	1.1	791	.3	253	20	.3	613	.0	68	50	.0					
80843	2535	.0	7	220	.0	1058	.1	107	80	.1	2291	.0	20	220	.1					
80844	3430	2.7	48	200	2.8	2789	.0	73	340	.0	3029	2.0	53	160	2.2	2889	2.4	73	180	2.5
80845	4600	.9	32	300	.8	2462	.2	115	160	.2	2926	1.1	42	200	.9					
80846	1786	.2	22	100	.2	1015	.1	120	60	.1	1107	.2	32	80	.2					
80847	9999	.1	85	1250	.2	2916	.0	127	350	.1	1526	.0	132	180	.0	837	.0	319	100	.0
80848	3922	3.1	46	320	3.1	1372	.5	489	80	.6	3420	2.5	61	190	2.6	3009	2.5	145	210	2.5
80849	470	.1	24	40	.1	697	.2	278	60	.2	305	.0	69	20	.0	183	.0	129	30	.0
80850	792	.2	51	60	.2	213	.0	201	40	.2	434	.0	84	50	.0					
80851	374	.1	6	50	.1	78	.0	26	30	.0	179	.0	8	40	.0	96	.0	6	30	.0

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TABLE 5.10-14 FOUR MODE TEST - GASOHOL (PORTLAND FLEET)

	----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
	----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
60901	1611	.0	21	190	.0	4640	.1	179	440	.1	1868	.0	41	200	.0	694	.0	71	80	.0
60902	311	.0	26	40	.0	614	.6	86	40	.6	241	.0	29	20	.0	238	.0	49	30	.0
60903	3116	1.3	26	200	1.3	507	.0	219	40	.0	2936	2.2	39	170	2.2	2786	2.2	66	190	2.4
60904	2796	.2	44	180	.2	5703	4.8	49	240	4.4	1465	.1	51	100	.1	1281	.0	64	100	.1
60905	9999	1.5	21	1000	1.5	1494	.1	111	140	.1	8623	1.4	36	780	1.5	5195	1.9	36	430	1.9
60906	4871	.1	41	400	.1	1862	.1	189	120	.1	1648	.0	71	160	.1	669	.0	169	60	.0
60907	6127	4.6	33	370	4.4	2388	.5	395	110	.6	6338	4.4	73	440	4.2	5676	4.3	48	400	4.2
60908	166	.0	23	20	.0	203	.0	78	20	.0	139	.0	33	20	.0	72	.0	43	10	.0
60909	2407	1.2	36	170	1.2	730	.0	126	60	.1	504	.0	29	50	.0	602	.0	0	60	.0
60910	891	.5	53	40	.5	561	.1	198	30	.1	757	.4	53	60	.5					
60911	1317	.2	33	120	.2	674	.1	138	60	.1	1280	.2	43	130	.2					
60912	1075	.3	61	60	.3	668	.0	123	70	.0	433	.0	81	40	.0	423	.0	86	40	.0
60913	6328	4.5	33	380	4.4	1678	.9	155	100	1.0	5395	3.4	53	320	3.4	4152	3.9	56	300	3.6
60915	3497	1.5	21	220	1.4	1150	.2	131	80	.2	2180	.6	31	140	.5	2162	.5	44	150	.4
60917	754	.0	23	130	.0	124	.0	128	60	.0	478	.0	33	100	.0	429	.0	33	100	.0
60919	953	.0	43	130	.0	93	.0	365	20	.0	570	.0	73	90	.0	215	.0	96	50	.0
60920	2471	.2	19	260	.2	369	.0	116	40	.0	629	.0	41	80	.0	431	.0	76	60	.0
60921	2312	.1	31	180	.1	669	.1	126	50	.1	2444	.2	44	200	.2	2239	.3	104	190	.3
60923	2597	.0	16	400	.0	216	.0	313	30	.0	853	.0	31	120	.0	476	.0	41	80	.0
60924	552	.1	33	70	.1	148	.0	86	40	.1	530	.1	48	60	.1	659	.0	58	80	.1
60925	1112	.1	53	110	.1	463	.2	517	60	.4	319	.0	83	50	.0	273	.0	150	50	.0
60926	5475	1.8	18	460	1.6	723	.0	148	80	.0	4473	1.8	28	330	1.8	3290	2.0	26	260	1.9
60927	2174	.1	91	220	.1	1266	.1	628	200	.1	990	.0	69	110	.0	1143	.0	216	100	.0
60928	1341	.0	28	180	.0	234	.0	135	40	.0	307	.0	48	60	.0	203	.0	71	40	.0
60929	1975	.1	51	180	.1	797	.5	155	60	.5	754	.0	71	80	.0	365	.0	155	50	.0
60930	2596	1.7	33	200	1.6	631	.0	76	80	.0	267	.0	111	50	.0	475	.0	128	80	.0
60931	1923	.0	36	210	.0	1096	.1	48	140	.0	1555	.0	48	160	.0		.0			
60932	2107	.1	19	220	.1	302	.0	565	40	.0	339	.0	34	40	.0	235	.0	29	40	.0
60933	2352	1.6	26	200	1.6	3317	.0	136	380	.0	755	.0	49	80	.0	525	.0	51	60	.0
60934	706	.2	24	60	.2	415	.1	89	30	.1	599	.2	26	60	.2					
60935	1543	.9	48	100	1.0	408	.1	175	40	.1	1604	1.1	56	100	1.2	1586	.5	83	120	.6
60936	3420	1.3	33	210	1.4	1286	.9	143	120	1.0	1993	.4	53	160	.4	2228	.3	88	190	.1
60937	455	.1	44	130	.1	317	.0	151	120	.1	516	.3	39	140	.4	320	.3	89	100	.2
60938	320	.0	26	20	.0	131	.0	326	20	.0	272	.0	51	30	.0	480	.0	76	60	.0
60939	2088	2.0	31	140	2.0	368	.0	56	60	.0	292	.0	56	50	.0	433	.1	53	80	.4

TABLE 5.10-14 FOUR MODE TEST - GASOHOL (PORTLAND FLEET) CONT'D

EPA NO	IDLE NEUTRAL LAB HC	IDLE NEUTRAL LAB CO	IDLE NEUTRAL LAB NOX	IDLE NEUTRAL GARAGE HC	IDLE NEUTRAL GARAGE CO	2500 RPM LAB HC	2500 RPM LAB CO	2500 RPM LAB NOX	2500 RPM GARAGE HC	2500 RPM GARAGE CO	IDLE NEUTRAL LAB HC	IDLE NEUTRAL LAB CO	IDLE NEUTRAL LAB NOX	IDLE NEUTRAL GARAGE HC	IDLE NEUTRAL GARAGE CO	IDLE IN GEAR LAB HC	IDLE IN GEAR LAB CO	IDLE IN GEAR LAB NOX	IDLE IN GEAR GARAGE HC	IDLE IN GEAR GARAGE CO
60940	504	.3	4	40	.3	201	.2	96	10	.2	525	.3	16	40	.3					
60941	317	.0	99	40	.0	226	.0	191	20	.0	238	.0	86	40	.0					
60942	1985	.1	14	160	.2	654	.3	121	60	.2	1899	.2	26	160	.2					
60943	934	1.3	33	60	1.3	93	.0	111	20	.0	913	1.6	48	60	1.6	996	1.4	73	80	1.4
60944	699	.0	31	60	.0	298	.0	143	40	.1	325	.0	43	40	.0					
60945	220	.0	41	30	.0	201	.0	271	30	.0	164	.0	49	30	.0	308	.0	114	40	.0
60946	1777	.0	29	220	.0	694	.0	94	80	.0	1214	.0	46	170	.0	495	.0	139	70	.0
60947	1540	.1	53	80	.1	295	.1	183	20	.1	485	.0	66	30	.0	451	.0	138	20	.0
60948	2504	.1	51	180	.1	1035	.2	71	70	.3	1617	.1	63	110	.2					
60949	1556	.0	19	160	.1	645	.1	129	50	.1	2046	.1	21	200	.1	1917	.4	51	180	.4
60950	9999	7.3	14	520	7.2	883	.0	191	100	.1	730	.0	29	70	.0	8309	6.8	11	460	6.8
60951	1054	.7	38	60	.7	534	.1	106	60	.1	1197	.9	53	70	1.0					
60952	5502	3.4	21	380	3.3	1125	.1	121	90	.1	981	.0	26	120	.0	954	.0	114	120	.0
60953	5064	2.3	53	340	2.1	638	.0	66	80	.0	494	.0	51	60	.0	512	.0	220	80	.0
60954	9999	.1	103	1960	.1	1617	.1	382	160	.2	9999	.1	123	1960	.1	9999	.1	248	1560	.1
80901	4861	3.1	24	300	3.0	853	.1	136	80	.1	617	.0	36	80	.0					
80902	8229	4.7	24	340	4.5	1832	.1	144	160	.3	1520	.0	26	120	.0					
80903	510	.0	0	40	.0	241	.0	91	20	.1	354	.0	24	30	.0	250	.0	21	30	.0
80904	188	.0	58	30	.0	99	.0	98	20	.0	249	.0	61	40	.0	127	.0	178	20	.0
80906	934	.0	28	100	.1	322	.1	243	40	.1	861	.1	46	90	.1	760	.0	106	70	.0
80907	114	.0	28	20	.0	172	.0	76	30	.0	145	.0	36	20	.0	84	.0	36	20	.0
80908	4092	2.3	28	320	2.3	1219	.0	61	180	.0	417	.0	48	60	.0	3109	2.6	33	180	2.5
80909	3437	2.3	21	220	2.2	1771	.2	89	170	.2	3157	2.5	24	200	2.6	2704	2.6	24	200	2.5
80910	1306	.3	21	90	.3	342	.0	114	30	.0	180	.0	26	20	.0	125	.0	31	20	.0
80911	1831	.0	33	230	.1	815	.1	208	80	.1	1213	.0	46	150	.0	662	.0	61	80	.0
80912	333	.1	11	100	.1	376	1.5	89	80	1.4	284	.1	36	90	.1					
80913	836	.1	51	70	.1	1005	.1	148	120	.3	209	.0	48	40	.0	200	.0	48	40	.0
80914	409	.0	24	60	.0	171	.0	276	20	.0	244	.0	51	30	.0	122	.0	124	20	.0
80915	2269	.3	24	200	.2	822	.1	82	80	.2	317	.0	54	40	.0	268	.0	64	40	.0
80916	179	.0	23	40	.0	93	.0	106	20	.0	99	.0	46	20	.0	81	.0	53	20	.0

TABLE 5.10-14 FOUR MODE TEST - GASOHOL (PORTLAND FLEET) CONT'D

	----IDLE NEUTRAL----					------2500 RPM------					----IDLE NEUTRAL----					----IDLE IN GEAR----				
	----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE		----LAB----			GARAGE	
EPA NO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO	HC	CO	NOX	HC	CO
80919	724	.0	21	100	.0	461	.0	114	60	.0	559	.0	36	80	.0	128	.0	59	20	.0
80920	690	.0	26	110	.0	6398	.1	76	680	.1	638	.0	46	100	.0	270	.0	43	60	.0
80921	3257	1.4	19	200	1.4	1257	.2	57	100	.2	1322	.9	69	100	1.0	1966	1.6	39	150	1.8
80923	929	.0	21	110	.0	226	.0	234	30	.0	308	.0	49	40	.0	210	.0	91	40	.0
80924	6568	.1	43	740	.1	974	.0	208	100	.1	616	.0	58	80	.0	463	.0	101	60	.0
80925	1662	.3	23	160	.4	699	.2	81	80	.3	996	.2	28	100	.1	549	.0	58	70	.0
80926	571	.0	31	90	.0	109	.0	174	20	.0	354	.0	56	40	.0	158	.0	131	30	.0
80927	1402	.0	21	110	.0	968	.3	250	70	.4	237	.0	26	60	.0	124	.0	26	40	.0
80928	486	.5	21	60	.5	241	.1	161	30	.2	434	.3	36	40	.3					
80929	3370	.5	36	220	.6	561	.0	145	60	.0	494	.0	86	70	.0	362	.0	447	60	.0
80930	2473	.3	53	160	.4	2919	.2	273	260	.2	2388	.4	63	180	.4					
80931	943	.0	58	140	.0	203	.0	135	20	.0	729	.0	78	120	.0	270	.0	175	40	.0
80932	1725	.0	46	160	.0	663	.1	214	40	.1	1101	.0	54	120	.0	495	.0	144	70	.0
80933	4801	.3	4	520	.3	516	.0	224	60	.1	2688	.9	54	200	1.1	1884	.8	121	140	.8
80934	1205	.0	24	220	.0	372	.0	96	40	.0	418	.0	46	50	.0	305	.0	49	30	.0
80935	1442	.1	48	200	.0	619	.0	155	120	.0	457	.0	61	100	.0	769	.0	61	150	.0
80936	84	.0	11	20	.0	44	.0	11	20	.0	47	.0	11	20	.0					
80937	3838	.1	64	320	.1	2254	.0	164	320	.0	486	.0	84	60	.0	299	.0	229	30	.0
80938	1366	.2	41	60	.2	1268	1.1	126	60	1.2	1121	.2	53	60	.2					
80939	1693	.1	51	140	.1	200	.0	198	20	.0	176	.0	61	20	.0	240	.0	190	20	.0
80940	7200	.6	58	700	.7	1173	.0	128	150	.1	891	.0	138	120	.0	530	.0	402	80	.0
80941	3026	1.3	21	200	1.3	2627	.0	134	260	.1	2367	.9	21	150	1.0	2392	1.0	76	180	.8
80942	1581	.1	14	130	.1	929	.1	144	90	.1	1143	.1	29	100	.1					
80943	5021	.1	46	530	.1	1465	.1	633	130	.2	2144	.0	56	260	.0	822	.0	161	100	.0
80944	347	.0	71	40	.0	270	.0	332	40	.0	570	.0	71	80	.0					
80947	593	.0	21	60	.0	119	.0	101	0	.0	265	.0	26	20	.0	247	.1	21	20	.1
80948	2841	1.7	29	200	1.6	486	.0	940	40	.1	2174	.8	46	180	.5	2113	.8	76	160	.8
80949	586	.3	33	150	.3	102	.0	245	60	.1	387	.0	53	60	.0	454	.0	173	60	.0
80950	1293	.2	2	160	.2	415	.0	64	40	.2	272	.0	51	20	.0	177	.0	149	20	.0
80951	675	.0	16	50	.0	1709	.7	169	100	1.2	1709	.1	51	170	.1					
80952	654	.0	41	80	.0	3648	.1	71	300	.2	302	.0	64	40	.0	174	.0	184	20	.0
80953	3407	.0	26	380	.0	562	.1	161	60	.1	2474	.0	41	300	.0	828	.0	54	100	.0
80954	4189	3.0	26	300	3.2	415	.0	169	50	.1	369	.0	36	40	.0	1281	.6	21	50	.0
80955	1709	.0	19	200	.1	1679	.7	66	220	1.2	1792	.1	21	200	.2	2358	1.0	131	200	.1
80956	1427	.5	63	40	.6	1617	.4	130	120	.4	1525	.0	83	120	.1					

TABLE 5.10-15 FTP & HFET TEST RESULTS (VANCOUVER FLEET)

EPA NO.	DATE	ODOM	IW	AHP	FTP HC	FTP CO	FTP CO2	FTP NOX	FTP NOXC	FTP MPG	HFET HC	HFET CO	HFET CO2	HFET NOX	HFET MPG
60801	801008	61754	2500	9.4	1.24	12.99	382.6	2.46	2.32	21.8	.64	7.14	240.2	3.70	34.99
60802	801009	30072	4000	13.2	2.85	47.55	401.4	2.51	2.24	18.3	.52	3.42	330.4	2.41	26.28
60803	801008	56247	4000	13.2	.63	5.85	560.8	3.44	3.15	15.5	.10	.34	424.5	3.71	20.85
60804	801009	54466	2000	8.3	.84	4.27	332.4	1.23	1.12	25.9	.04	.97	240.5	1.29	36.62
60805	801010	40431	4000	13.2	3.68	39.05	556.7	2.21	1.85	14.1	.57	2.25	482.8	2.23	18.17
60806	801010	64798	2500	16.5	1.95	24.25	336.3	3.28	2.86	23.3	1.05	5.82	236.0	3.58	35.69
60807	801014	42802	2250	8.8	1.67	12.19	302.4	3.22	2.98	27.1	.83	3.90	221.7	4.10	38.48
60808	801014	28836	4000	13.2	1.16	8.16	683.4	1.76	1.59	12.7	.33	1.09	514.4	2.38	17.15
60809	801015	40175	4500	14.0	3.73	67.80	588.3	2.31	2.10	12.5	.52	10.24	475.1	3.93	17.99
60810	801015	22531	4500	12.7	7.49	60.76	503.0	3.08	2.87	14.3	.71	7.33	429.0	4.26	20.03
60811	801016	65654	5500	15.3	.47	3.73	926.0	1.31	1.20	9.5	.03	.00	726.9	1.73	12.20
60812	801016	44563	4500	12.7	6.76	99.06	478.1	4.62	4.20	13.5	1.14	12.00	398.9	7.00	21.05
60813	801017	34730	5000	14.7	1.55	9.78	603.2	2.43	2.20	14.2	.24	.73	460.2	3.53	19.19
60814	801017	35315	5000	14.7	2.27	23.77	560.9	3.32	3.05	14.6	.32	1.27	427.9	4.52	20.58
60815	801020	85449	4500	14.0	4.67	71.32	559.1	1.94	1.87	12.9	2.46	46.51	419.8	1.87	17.71
60816	801021	79669	5000	14.7	2.21	29.03	590.4	3.21	2.91	13.8	.21	1.24	441.5	3.63	19.97
60817	801022	35722	5000	14.7	1.39	42.77	649.8	3.41	3.02	12.3	.14	2.70	467.9	5.09	18.76
60818	801027	53034	4500	14.0	2.73	12.50	701.1	3.20	2.87	12.2	.77	2.28	486.6	2.95	18.00
60819	801027	75287	2500	9.4	2.52	25.34	355.7	1.87	1.72	22.0	.67	7.83	246.5	2.43	33.98
60820	801027	55030	3000	11.3	1.75	25.73	426.8	3.65	3.29	18.8	.37	2.97	364.2	4.49	23.97
60821	801029	46964	5000	13.4	1.12	6.64	780.7	2.01	1.83	11.2	.28	.08	598.7	2.07	14.79
60822	801029	50625	4000	13.2	2.14	28.92	486.7	5.12	4.56	16.5	.99	15.87	377.2	4.05	21.88
60823	801029	33404	4000	13.2	1.06	19.25	473.2	6.44	5.93	17.5	.41	6.72	406.4	7.20	21.20
60824	801029	71048	4000	13.2	5.13	44.05	527.1	6.16	5.66	14.5	1.83	5.13	432.1	7.37	19.88
60825	801031	58530	4000	13.2	2.03	5.41	687.4	1.65	1.49	12.6	1.68	1.84	478.0	2.54	18.24
60826	801030	63657	5000	14.7	1.72	10.96	685.9	3.85	3.51	12.5	.24	.33	513.7	4.67	17.22
60827	801030	45729	3000	10.3	.60	3.56	423.0	4.34	3.97	20.6	.28	1.07	322.8	5.88	27.25
60828	801030	39269	5000	14.7	1.99	59.90	604.2	2.47	2.23	12.6	.30	5.20	455.6	3.68	19.08
60829	801031	40495	4500	14.0	3.42	27.87	606.8	3.14	2.84	13.4	.76	1.46	489.7	3.58	17.94
60830	801031	42202	4000	13.2	5.00	46.41	688.9	2.64	2.44	11.4	.82	2.85	466.3	3.34	18.73
60831	801031	83489	3000	10.3	5.39	9.25	418.9	4.07	3.73	19.7	.59	3.01	272.8	5.63	31.74
60832	801103	66518	4000	13.2	3.64	48.86	432.6	4.79	4.84	17.0	.94	4.46	363.9	6.41	23.71
60833	801105	67399	4500	14.0	3.46	41.49	636.0	1.70	1.63	12.5	.59	2.75	532.9	2.19	16.45
60834	801105	62320	4000	13.2	6.90	73.85	518.1	1.41	1.36	13.5	3.63	29.92	415.2	1.89	18.72
60835	801106	69400	4500	14.0	.74	7.93	703.3	2.49	2.45	12.4	.11	.62	520.1	3.24	17.01

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TABLE 5.10-15 FTP & HFET TEST RESULTS (VANCOUVER FLEET) (CONT'D)

					FTP						HFET				
EPA NO.	DATE	ODOM	IW	AHP	HC	CO	CO2	NOX	NOXC	MPG	HC	CO	CO2	NOX	MPG
60836	801106	68756	5500	15.3	4.60	75.08	678.9	1.31	1.23	10.9	1.51	20.84	580.1	1.66	14.36
60837	801106	76300	4500	14.0	2.58	54.02	630.2	3.01	2.89	12.3	1.34	4.64	472.0	3.28	18.34
60838	801110	32987	3000	11.3	1.18	6.49	515.7	3.10	2.94	16.7	.33	2.34	438.7	2.44	20.00
60839	801110	43440	5000	13.4	6.86	175.13	572.1	1.45	1.36	10.2	4.20	151.46	403.9	1.22	13.53
60840	801110	60476	4500	12.7	3.84	47.63	614.5	3.35	3.02	12.6	.58	3.50	492.4	4.15	17.74
60841	801112	71038	4000	13.2	1.07	18.71	591.1	5.78	5.27	14.2	.19	1.09	490.6	8.66	17.99
60843	801112	59015	2250	8.8	1.11	10.32	316.4	2.64	2.40	26.4	.78	3.22	221.7	4.94	38.69
60844	801114	32581	4500	12.7	.67	2.92	558.0	4.02	3.57	15.7	.13	.23	416.5	4.65	21.26
60845	801113	49818	4000	13.2	1.50	6.83	572.8	6.16	5.27	15.1	.65	2.07	442.3	4.25	19.81
60846	801114	69027	4000	13.2	2.15	23.26	564.8	3.34	3.00	14.6	.42	4.53	458.4	3.70	18.99
60847	801117	49134	2500	9.4	.29	1.63	457.6	1.70	1.58	19.2	.05	.11	269.4	2.65	32.88
60848	801117	41783	2250	8.8	2.07	11.87	311.9	3.06	2.84	26.3	1.10	5.94	241.9	5.85	34.82
60849	801117	58538	4000	13.2	.69	2.98	541.5	2.93	2.69	16.2	.11	.12	418.0	3.56	21.19
60850	801118	37681	2500	8.0	2.19	29.34	335.9	3.38	3.16	22.8	1.17	4.11	236.6	3.85	35.94
60851	810121	84318	4500	14.0	1.43	9.92	651.4	6.59	6.02	13.2	.42	2.68	501.2	8.06	17.50
80801	801008	36956	2500	9.4	.72	11.17	349.6	1.90	1.81	24.0	.14	.70	242.7	3.03	36.31
80802	801007	18190	4000	9.5	1.02	8.11	532.9	1.70	1.70	16.2	.08	.33	361.6	1.53	24.47
80803	801007	34862	3000	8.8	1.08	7.63	391.1	2.56	2.48	21.8	.22	.51	255.8	3.29	34.46
80804	801008	20233	3500	10.0	1.00	16.54	419.5	3.89	3.89	19.8	.19	2.32	319.2	5.64	27.42
80805	801009	60245	4000	11.3	2.16	45.44	533.5	1.35	1.19	14.5	.44	6.03	396.8	1.68	21.75
80806	801009	42537	4000	10.6	2.14	29.64	451.3	1.58	1.44	17.6	.37	2.94	335.0	1.93	26.02
80807	801010	33826	3500	10.7	1.80	15.32	456.9	2.55	2.21	18.2	.15	.21	338.0	2.63	26.18
80808	801010	25737	4500	10.9	.89	14.78	575.0	1.76	1.54	14.8	.12	.89	398.9	1.54	22.14
80809	801010	48964	2250	8.8	.78	3.29	309.5	1.45	1.24	28.0	.06	.59	233.9	2.14	37.74
80810	801014	27357	4000	10.6	.95	18.56	542.6	1.39	1.29	15.4	.19	4.19	361.9	1.37	24.03
80811	801015	29260	3500	10.7	1.08	15.63	432.2	4.51	4.14	19.3	.11	1.21	322.7	5.59	27.29
80812	801015	15532	4000	10.6	.67	8.02	640.6	1.86	1.66	13.5	.08	.23	408.1	1.80	21.70
80813	801016	44534	3500	10.7	1.21	10.75	426.3	5.14	4.61	19.8	.17	.44	337.7	6.40	26.16
80814	801015	47255	2000	5.4	.41	2.26	305.2	3.69	3.40	28.6	.09	.10	194.5	3.76	45.49
80815	801016	24878	3500	9.3	2.73	31.52	491.7	1.87	1.67	16.1	.35	.65	376.3	2.01	23.44

TABLE 5.10-15 FTP & HFET TEST RESULTS (VANCOUVER FLEET) (CONT'D)

					FTP						HFET				
EPA NO.	DATE	ODOM	IW	AHP	HC	CO	CO2	NOX	NOXC	MPG	HC	CO	CO2	NOX	MPG
80816	801016	39839	2250	8.3	1.35	10.09	314.4	2.63	2.37	26.5	.56	1.57	212.4	3.03	40.93
80817	801017	20409	4000	9.5	1.06	11.15	572.1	2.01	1.85	15.0	.09	.21	432.6	2.06	20.47
80818	801020	19005	5000	13.7	.68	5.77	644.7	2.43	2.37	13.5	.04	.00	453.1	1.84	19.57
80819	801020	40787	4000	11.3	1.92	17.85	463.0	2.14	2.04	17.8	.18	.51	363.9	2.94	24.28
80820	801022	25471	4500	12.5	.55	2.10	586.7	2.26	2.02	15.0	.12	.10	432.1	2.57	20.50
80821	801021	29787	3500	9.3	3.15	39.18	424.4	2.28	2.06	17.9	.49	2.27	349.7	2.39	24.99
80822	801021	37966	3500	10.7	.57	2.70	478.5	2.66	2.45	18.3	.10	.19	355.9	2.69	24.88
80823	801022	37900	3500	10.7	.57	7.22	468.9	3.95	3.49	18.4	.08	.12	367.4	1.86	24.11
80824	801023	55087	2500	9.4	1.25	19.36	352.1	2.13	1.83	22.9	.36	3.35	253.4	3.11	34.13
80825	801022	62704	4000	11.3	2.54	29.13	513.4	3.13	2.79	15.6	.39	1.31	389.8	3.01	22.56
80826	801023	26094	5000	13.7	.47	2.00	681.8	3.25	2.75	12.9	.06	.00	456.2	2.45	19.43
80827	801023	16820	5000	8.8	.75	7.16	837.1	1.55	1.33	10.4	.09	.06	508.7	1.59	17.42
80828	801023	33353	3500	8.6	.59	2.00	571.3	1.86	1.59	15.4	.24	.07	361.9	1.27	24.45
80829	801023	32793	4500	12.3	1.64	22.63	610.6	2.51	2.15	13.6	.29	1.58	437.1	3.71	20.13
80830	801024	8886	3500	10.7	.87	7.63	526.0	2.58	2.24	16.4	.13	.02	388.3	3.46	22.81
80831	801023	48389	4500	10.9	.64	6.45	670.6	1.30	1.11	13.0	.13	.12	423.5	1.62	20.91
80832	801024	29522	4500	9.5	3.03	41.50	529.0	6.31	5.84	14.7	.29	1.19	390.3	8.46	22.56
80833	801024	23646	4000	11.3	1.43	24.12	595.4	1.38	1.31	13.9	.08	.37	451.1	1.29	19.62
80834	801024	20047	3500	10.7	.41	2.63	491.0	3.32	3.15	17.9	.08	.11	350.9	3.14	25.24
80835	801024	29979	4000	9.6	1.16	13.60	538.5	2.53	2.21	15.7	.14	.36	375.2	2.79	23.57
80836	801024	19025	4500	11.3	.67	11.47	602.3	2.16	2.08	14.2	.08	.58	435.1	2.14	20.33
80837	801027	37274	4000	9.5	1.21	10.53	540.4	2.54	2.29	15.8	.32	2.29	380.9	2.23	23.01
80839	801103	19389	3000	10.6	.76	7.99	400.8	1.97	1.96	21.3	.18	.74	307.0	2.40	28.72
80840	801103	40736	4500	12.8	1.92	48.27	649.0	4.09	4.27	12.1	.61	14.21	462.8	4.63	18.21
80841	801104	17793	3500	12.3	.67	7.77	551.3	5.86	5.79	15.7	.10	.23	411.6	8.20	21.51
80842	801105	45088	3500	9.4	6.95	28.45	576.2	1.93	1.86	13.8	.37	1.01	342.4	2.02	25.69
80843	801105	43115	2250	8.8	1.05	4.88	313.2	2.34	2.29	27.4	.76	1.40	213.5	4.87	40.65
80844	801105	51156	3500	8.6	.98	12.60	494.9	1.43	1.38	17.1	.27	.25	377.1	.83	23.44
80845	801107	58316	2250	7.3	2.04	17.96	317.1	2.06	2.06	25.2	1.53	10.94	215.0	2.64	37.42
80846	801106	21438	2250	8.8	1.06	8.45	317.4	2.05	2.07	26.6	.91	1.83	218.8	3.88	39.50
80847	801107	19579	4500	9.5	1.18	6.90	537.3	2.25	2.25	16.1	.45	.89	360.1	1.37	24.43
80848	801107	27247	3500	10.7	1.76	32.20	463.9	4.14	4.03	17.1	.21	2.13	388.4	6.27	22.60
80849	801114	29448	2500	7.0	.44	9.58	357.8	4.39	3.87	23.7	.15	1.99	289.7	7.71	30.23
80850	801117	39411	3000	10.3	.66	3.21	455.0	4.00	3.69	19.2	.23	.09	299.1	5.86	29.56
80851	801219	17396	4000	11.1	2.00	29.64	494.0	1.69	1.41	16.2	.21	2.09	396.0	1.85	22.17

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TABLE 5.10-16 FTP & HFET TEST RESULTS (PORTLAND FLEET)

					FTP						HFET				
EPA NO	DATE	ODOM	IW	AHP	HC	CO	CO2	NOX	NOXC	MPG	HC	CO	CO2	NOX	MPG
60901	801120	85023	5000	14.7	1.19	4.98	633.7	3.21	2.96	13.7	.21	.63	497.3	3.65	17.78
60902	801124	90768	4500	14.0	2.95	71.81	801.7	1.32	1.20	9.6	1.87	57.21	562.6	1.20	13.47
60903	801121	29230	4500	12.7	2.85	49.39	572.7	3.63	3.63	13.4	.37	4.31	445.9	6.02	19.54
60904	801121	82173	4000	13.2	4.71	120.45	558.9	.80	.75	11.6	3.86	149.53	353.1	.43	14.77
60905	801124	70133	5000	14.7	2.21	18.88	572.0	3.52	3.27	14.6	.25	.54	445.9	3.80	19.82
60906	801124	61349	5500	15.3	1.78	12.69	798.6	5.11	4.61	10.8	.18	.26	597.6	1.56	14.81
60907	801124	42782	4000	13.2	5.11	60.25	449.6	4.20	3.88	15.8	1.08	7.60	410.6	4.51	20.82
60908	801125	25695	4500	12.7	.44	3.35	610.5	3.17	2.97	14.4	.10	.27	437.9	2.19	20.22
60909	801125	63559	4000	13.2	1.24	5.67	659.2	2.28	2.09	13.2	.56	2.22	516.4	3.02	17.00
60910	801125	45077	2250	8.8	1.28	12.85	330.7	3.93	3.66	25.0	.73	4.18	220.9	4.36	38.59
60911	801201	47800	2250	8.8	1.61	9.31	315.6	4.86	4.53	26.4	1.00	3.39	242.5	6.49	35.34
60912	801126	48957	4000	13.2	1.61	10.90	684.3	1.89	1.74	12.6	.45	1.04	493.6	2.32	17.86
60913	801202	65935	4000	13.2	3.89	69.68	488.1	3.10	2.85	14.5	.80	16.68	428.3	3.84	19.40
60915	801126	48171	4000	13.2	1.65	26.56	562.8	2.52	2.27	14.5	.22	3.08	436.3	2.88	20.07
60917	801202	56702	5000	13.4	1.67	23.20	629.3	3.37	3.10	13.2	.18	3.04	515.3	4.66	17.03
60919	801201	46615	5000	13.4	1.98	25.19	673.7	5.22	4.87	12.3	.23	3.08	490.8	6.82	17.86
60920	801201	51771	4500	14.0	1.85	11.19	620.9	3.35	3.03	13.8	.29	.43	501.5	3.34	17.63
60921	801201	41825	4000	13.2	1.54	14.32	501.1	2.57	2.34	16.8	.25	2.38	382.6	3.15	22.90
60923	801204	84556	4500	14.0	1.26	11.56	659.9	6.65	5.96	13.0	.26	.79	463.1	6.26	19.06
60924	801204	64384	3000	11.3	1.71	16.40	492.2	2.11	1.90	16.9	.35	3.55	449.2	2.93	19.45
60925	801204	63817	4500	14.0	3.06	52.87	579.1	4.26	3.85	13.2	.53	9.00	461.4	6.40	18.58
60926	801208	38595	5000	14.7	3.62	38.87	565.5	9.14	8.20	13.9	.41	2.19	462.4	11.09	18.98
60927	801204	77987	4000	13.2	1.47	17.64	470.1	8.41	7.28	17.6	1.60	2.40	386.6	9.36	22.43
60928	801209	54128	4500	12.7	.62	11.95	720.7	4.06	3.53	12.0	.08	.23	504.2	4.72	17.57
60929	801209	33550	4500	14.0	1.68	40.75	616.4	2.75	2.44	12.9	.23	5.47	492.4	4.13	17.67
60930	801210	46322	4000	13.2	1.72	8.21	594.4	3.00	2.75	14.5	.80	.99	474.0	3.86	18.55
60931	801210	71641	2500	8.0	1.21	5.28	366.1	3.05	2.76	23.4	.43	2.22	264.3	3.50	32.95
60932	801211	44522	4000	13.2	.64	6.41	573.1	5.98	5.31	15.2	.14	1.11	476.2	6.20	18.54
60933	801211	55584	4000	13.2	1.50	22.41	675.5	1.93	1.72	12.4	.40	1.44	489.8	2.45	17.98
60934	801216	51795	2500	9.4	1.31	10.35	402.3	2.93	2.65	21.0	.45	4.00	242.7	3.90	35.42
60935	801215	48226	5000	14.7	1.55	42.33	618.1	4.49	3.95	12.9	.25	4.05	466.7	6.51	18.71
60936	801212	65430	4500	14.0	3.06	50.73	587.8	2.69	2.50	13.1	.64	11.29	479.3	3.84	17.77
60937	801212	70551	5500	15.3	2.11	31.70	764.2	2.55	2.34	10.8	.28	2.91	599.0	3.01	14.67
60938	801212	76189	4500	14.0	1.27	6.75	722.3	6.57	5.79	12.0	.42	1.16	498.6	4.15	17.68
60939	801216	53726	4500	14.0	.81	6.94	719.0	1.94	1.83	12.1	.30	.48	516.7	2.53	17.11

TABLE 5.10-16 FTP & HFET TEST RESULTS (PORTLAND FLEET) (CONT'D)

EPA NO	DATE	ODOM	IW	AHP	FTP HC	FTP CO	FTP CO2	FTP NOX	FTP NOXC	FTP MPG	HFET HC	HFET CO	HFET CO2	HFET NOX	HFET MPG
60940	801216	73085	2500	9.4	2.72	35.23	354.4	2.05	1.90	21.2	1.13	15.62	230.7	2.69	34.26
60941	801217	43252	2500	8.8	.74	8.02	318.4	3.77	3.44	26.6	.09	.46	242.7	5.51	36.40
60942	801219	57023	2500	9.4	3.02	28.37	348.7	2.65	2.31	22.0	1.21	10.55	243.4	3.96	33.62
60943	801217	39196	5000	14.7	1.05	41.10	698.5	3.92	3.63	11.6	.10	3.43	535.7	4.41	16.38
60944	801218	83057	3000	10.3	1.19	4.98	402.4	3.42	2.91	21.4	.35	.36	281.7	5.69	31.29
60945	801219	48250	3000	10.3	.70	3.57	478.7	6.49	5.65	18.2	.37	1.55	327.4	7.69	26.79
60946	801223	37999	5000	14.7	.88	7.72	678.6	2.84	2.64	12.8	.17	.65	522.2	3.31	16.93
60947	801230	47963	5000	13.4	1.34	18.54	691.8	3.78	3.54	12.2	.15	1.23	525.1	4.56	16.81
60948	801231	49127	2000	8.3	1.38	5.89	300.3	1.29	1.17	28.2	.22	2.08	243.5	1.91	35.84
60949	810105	65260	4000	13.2	2.21	29.07	553.2	3.79	3.37	14.6	.27	2.51	450.5	4.94	19.48
60950	810105	36694	4000	13.2	2.02	14.66	676.8	4.00	3.52	12.6	.88	1.03	488.0	5.99	18.01
60951	810112	43139	2500	8.0	1.28	12.36	330.1	3.78	3.15	25.1	.82	3.20	240.0	4.55	35.81
60952	810113	74581	4000	13.2	1.48	8.61	546.5	3.88	3.37	15.7	.51	1.34	434.1	4.89	20.26
60953	810115	21963	4000	13.2	1.19	2.43	565.5	1.86	1.51	15.5	.42	.36	477.0	2.34	18.52
60954	810211	33278	3000	11.3	4.70	45.41	437.8	2.00	1.67	16.9	1.06	16.79	396.6	2.36	20.80
80901	801119	32594	3000	8.8	1.52	12.55	419.1	3.10	2.97	20.0	.29	1.00	264.2	4.69	33.26
80902	801120	42019	3000	8.8	1.55	8.83	413.8	2.40	2.24	20.5	.27	.65	265.7	3.43	33.14
80903	801202	26049	4000	11.1	.77	9.68	563.0	2.71	2.66	15.3	.09	.05	392.8	2.35	22.56
80904	801202	21088	4500	11.3	2.87	43.68	563.4	1.40	1.35	13.8	.24	4.90	445.8	1.63	19.52
80906	801203	31507	4000	11.3	1.74	19.55	453.1	4.34	4.08	18.1	.18	1.88	362.0	6.71	24.26
80907	801203	17636	4000	9.1	.69	6.83	515.3	2.26	2.06	16.8	.10	.40	376.6	2.00	23.49
80908	801204	32573	4500	9.5	2.50	36.39	548.5	1.52	1.36	14.5	.35	1.35	392.3	1.39	22.42
80909	801204	30794	4000	9.5	2.09	40.97	598.1	1.38	1.26	13.3	.27	1.87	503.4	1.22	17.49
80910	801205	24129	2500	15.1	.64	18.28	322.0	1.30	1.16	25.1	.20	4.83	253.4	1.86	33.89
80911	801205	48231	3500	10.7	.62	4.46	461.5	1.96	1.79	18.9	.10	.43	340.3	2.60	25.98
80912	801205	31596	2500	9.4	1.35	14.15	367.9	1.38	1.24	22.5	.20	2.03	263.5	1.36	33.18
80913	801205	30102	3500	9.3	1.28	14.52	458.7	1.59	1.46	18.3	.67	8.12	329.8	.97	25.73
80914	801205	37511	3500	10.7	.80	10.28	501.4	3.02	2.72	17.1	.11	.94	362.9	3.44	24.32
80915	801208	25899	3500	8.6	1.27	19.40	466.5	5.88	5.00	17.7	.21	2.53	350.2	6.41	24.99
80916	801208	15318	3500	10.7	.70	9.87	486.3	2.54	2.25	17.6	.09	1.30	381.5	3.13	23.11

TABLE 5.10-16 FTP & HFET TEST RESULTS (PORTLAND FLEET) (CONT'D)

EPA NO	DATE	ODOM	IW	AHP	FTP HC	FTP CO	FTP CO2	FTP NOX	FTP NOXC	FTP MPG	HFET HC	HFET CO	HFET CO2	HFET NOX	HFET MPG
80919	801210	33339	4500	12.5	1.01	10.71	593.8	2.69	2.36	14.4	.17	.07	439.5	2.83	20.15
80920	801211	27358	4000	9.5	.67	4.87	726.9	1.41	1.28	12.0	.08	.08	559.7	1.45	15.83
80921	801211	24827	3500	12.3	2.28	42.11	516.6	5.04	4.39	15.0	.50	13.27	429.2	6.61	19.64
80923	801215	45422	3500	10.7	.61	1.85	522.3	5.07	4.60	16.8	.12	.02	366.7	6.02	24.16
80924	801223	21272	4000	9.6	1.16	13.73	562.7	1.89	1.68	15.1	.17	.69	377.6	2.87	23.38
80925	801216	21890	4000	9.5	1.67	16.04	549.6	1.69	1.52	15.3	.22	.71	402.4	1.71	21.94
80926	801216	21103	5000	13.7	1.70	18.20	641.1	2.72	2.48	13.1	.18	.72	455.9	2.82	19.38
80927	801217	23842	3500	10.0	.64	8.21	434.9	4.67	4.74	19.7	.11	.45	341.6	6.06	25.88
80928	801218	44867	2250	8.8	.79	10.19	338.8	2.62	2.34	24.8	.60	3.44	231.7	5.10	37.11
80929	801218	37351	4000	10.6	.86	6.75	504.7	2.91	2.51	17.1	.12	.40	377.7	2.93	23.41
80930	801219	53985	2250	7.3	2.80	8.60	285.6	4.30	3.59	28.8	1.97	5.73	219.8	5.99	37.73
80931	801222	48004	4500	12.3	2.77	36.09	592.5	2.28	2.09	13.5	1.09	14.98	436.2	1.89	19.15
80932	801222	12695	3500	10.7	1.25	10.43	521.1	3.16	3.07	16.4	.11	.17	383.4	4.49	23.09
80933	801222	24275	5000	13.7	3.07	44.31	680.8	1.94	1.88	11.7	.64	8.79	499.3	2.32	17.22
80934	801223	21798	5000	8.8	.68	4.82	737.1	1.57	1.46	11.9	.11	.42	484.4	1.30	18.27
80935	801224	64490	4000	11.3	.61	2.71	566.3	2.22	2.01	15.5	.13	.11	417.6	2.71	21.21
80936	801223	41176	2250	8.8	.55	3.79	319.6	2.01	1.80	27.1	.11	.55	252.8	2.51	34.91
80937	801222	14146	4500	9.5	1.05	5.45	570.4	2.81	2.71	15.2	.32	.90	403.1	1.84	21.87
80938	801230	58090	2500	9.4	1.15	12.82	343.9	3.00	2.75	24.1	.39	2.98	245.3	4.11	35.30
80939	801230	36543	4000	11.3	1.35	16.78	555.3	2.23	2.15	15.1	.16	.40	388.0	2.71	22.79
80940	801231	25953	3500	9.3	1.30	13.15	522.3	2.07	1.90	16.2	.47	.14	366.9	2.00	24.06
80941	801231	19236	3500	10.7	1.59	26.89	485.9	1.54	1.49	16.6	.25	2.14	354.7	2.29	24.71
80942	810105	25633	2250	8.8	1.16	7.53	322.7	2.56	2.27	26.2	.95	2.58	229.6	5.00	37.47
80943	810106	35534	3500	10.7	.77	7.25	482.3	6.04	5.42	17.9	.25	1.86	347.2	7.29	25.27
80944	810106	47337	2250	8.3	1.19	11.34	292.5	1.74	1.48	28.2	.74	7.42	219.9	2.38	37.91
80947	810108	26947	4500	10.9	.87	14.29	676.8	1.12	.98	12.6	.17	.98	465.7	1.49	18.96
80948	810112	27649	3500	10.7	1.18	13.72	445.6	4.57	3.98	18.8	.15	.51	334.8	5.86	26.38
80949	810112	43923	3500	10.7	1.37	15.78	419.9	5.33	4.44	19.7	.12	.47	332.9	4.75	26.55
80950	810112	38217	4000	9.5	3.05	50.87	495.7	1.53	1.33	15.2	.50	11.04	364.7	.90	23.12
80951	810113	43793	2000	5.4	1.08	13.41	281.7	3.32	2.89	29.0	.17	2.12	189.9	3.37	45.77
80952	810127	45367	3500	8.6	.68	5.33	450.7	1.75	1.61	19.2	.25	.18	332.2	1.01	26.61
80953	810127	62568	4000	11.3	1.65	13.49	502.7	2.25	2.04	16.8	.39	.53	364.8	2.70	24.17
80954	810129	41009	4500	10.9	.81	1.66	686.3	1.82	1.65	12.8	.15	.15	470.4	2.22	18.82
80955	810202	14472	3000	10.6	.71	7.08	387.0	3.22	2.86	22.1	.12	.59	311.4	3.63	28.36
80956	810210	37668	3500	19.4	.77	13.18	588.1	1.61	1.26	14.5	.14	2.87	373.4	.84	23.44

TABLE 5.10-17 PROPANE GAIN CHECK (VANCOUVER FLEET)

EPA NO	PRE-TEST PCV IN PLACE NEUTRAL	PRE-TEST PCV IN PLACE DRIVE	PRE-TEST PCV REMOVED NEUTRAL	PRE-TEST PCV REMOVED DRIVE	PRE-TEST PCV HOSE REM'D NEUTRAL	PRE-TEST PCV HOSE REM'D DRIVE	POST-TEST PCV IN PLACE NEUTRAL	POST-TEST PCV IN PLACE DRIVE	POST-TEST PCV REMOVED NEUTRAL	POST-TEST PCV REMOVED DRIVE	POST-TEST PCV HOSE REM'D NEUTRAL	POST-TEST PCV HOSE REM'D DRIVE
60801	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A
60802	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60803	70	10	130	DEC	70	DEC	90	DEC	170	30	110	DEC
60804	60	N/A	90	N/A	40	N/A	DEC	N/A	DEC	N/A	DEC	N/A
60805	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60806	40	N/A	40	N/A	30	N/A	DEC	N/A	DEC	N/A	DEC	N/A
60807	130	N/A	280	N/A	90	N/A	DEC	N/A	DEC	N/A	100	N/A
60808	DEC	DEC	10	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60809	20	DEC	30	DEC	30	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60810	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60811	240	100	240	200	240	90	300	100	210	80	260	100
60812	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60813	80	10	50	DEC	70	20	30	20	40	DEC	40	10
60814	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60815	50	DEC	70	10	40	DEC	80	DEC	100	DEC	60	DEC
60816	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60817	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60818	300	60	330	50	310	60	280	90	320	110	290	100
60819	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A
60820	30	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60821	50	10	60	10	40	DEC	50	DEC	100	20	70	DEC
60822	10	DEC	DEC	DEC	10	DEC	40	DEC	80	DEC	10	DEC
60823	130	40	170	50	130	40	50	50	130	60	60	20
60824	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	10	DEC	DEC	DEC
60825	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60826	80	DEC	90	DEC	50	DEC	60	DEC	100	DEC	40	DEC
60827	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60828	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60829	80	DEC	130	DEC	80	DEC	120	DEC	110	DEC	100	DEC
60830	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60831	20	N/A	120	N/A	30	N/A	DEC	N/A	DEC	N/A	DEC	N/A
60832	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60833	DEC	DEC	40	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60834	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60835	280	70	280	70	290	70	180	60	210	90	190	50

TABLE 5.10-17 PROPANE GAIN CHECK (VANCOUVER FLEET) CONT'D

	PRE-TEST						POST-TEST					
	PCV IN PLACE		PCV REMOVED		PCV HOSE REM'D		PCV IN PLACE		PCV REMOVED		PCV HOSE REM'D	
EPA NO	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE
60836	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60837	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60838	140	50	160	60	140	40	200	60	200	80	180	70
60839	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60840	DEC	DEC	10	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60841	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60843	DEC	N/A	N/A	N/A	N/A	N/A	DEC	N/A	N/A	N/A	N/A	N/A
60844	130	30	120	40	120	30	130	50	160	60	150	40
60845	50	DEC	40	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60846	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	30	DEC	DEC	DEC
60847	70	N/A		N/A		N/A	70	N/A	90	N/A	80	N/A
60848	40	N/A	N/A	N/A	N/A	N/A	DEC	N/A	N/A	N/A	N/A	N/A
60849	200	50	260	60	210	50	150	40	230	90	180	50
60850	DEC	N/A	N/A	N/A	N/A	N/A	DEC	N/A	DEC	N/A	N/A	N/A
60851	10	DEC	20	DEC	20	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80801	20	N/A	40	N/A	10	N/A	DEC	N/A	DEC	N/A	DEC	N/A
80802	200	80	270	110	200	80	150	60	230	80	140	60
80803	40	N/A	120	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A
80804	100	10	120	20	70	10	DEC	DEC	DEC	DEC	DEC	DEC
80805	30	10	50	10	10	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80806	50	DEC	90	DEC	50	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80807	70	DEC	60	10	50	DEC	70	DEC	90	DEC	90	DEC
80808	110	20	80	20	90	40	90	20	120	20	90	30
80809	140	N/A	150	N/A	130	N/A	DEC	N/A	DEC	N/A	DEC	N/A
80810	70	10	90	10	80	10	80	10	90	30	100	20
80811	220	60	240	60	250	70	140	50	210	60	150	50
80812	120	30	100	30	130	30	140	20	190	40	180	DEC
80813	160	20	200	60	180	40	180	40	180	60	160	40
80814	400	N/A	N/A	N/A	N/A	N/A	230	N/A	N/A	N/A	N/A	N/A
80815	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC

TABLE 5.10-17 PROPANE GAIN CHECK (VANCOUVER FLEET) CONT'D

	PRE-TEST						POST-TEST					
	PCV IN PLACE		PCV REMOVED		PCV HOSE REM'D		PCV IN PLACE		PCV REMOVED		PCV HOSE REM'D	
EPA NO	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE
80816	110	N/A	180	N/A	100	N/A	220	N/A	200	N/A	100	N/A
80817	150	30	150	50	50	30	150	60	190	80	150	30
80818	190	80	210	90	200	100	DEC	DEC	DEC	DEC	DEC	DEC
80819	70	10	100	10	50	10	40	DEC	70	DEC	30	DEC
80820	160	40	170	70	140	60	210	70	270	90	190	70
80821	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80822	130	30	170	60	110	30	130	10	160	50	150	50
80823	320	70	370	70	330	70	220	70	310	80	130	60
80824	60	N/A	50	N/A	40	N/A	DEC	N/A	DEC	N/A	DEC	N/A
80825	10	DEC	40	DEC	20	DEC	20	DEC	DEC	DEC	DEC	DEC
80826	270	120	280	130	250	70	290	80	300	80	290	70
80827	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80828	100	20	120	50	110	30	110	20	120	40	100	20
80829	60	20	50	20	70	20	80	30	120	20	90	30
80830	90	30	90	30	70	30	110	30	120	40	90	30
80831	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80832	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80833	80	30	80	30	70	20	40	DEC	50	10	40	DEC
80834	250	30	250	50	240	30	280	40	310	60	250	40
80835	30	DEC	30	DEC	30	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80836	140	30	120	40	110	30	120	40			130	40
80837	50	DEC	70	DEC	40	DEC	DEC	DEC	20	10	DEC	DEC
80839	120	20	120	10	160	20	140	10	100	30	170	DEC
80840	80	20	60	40	80	20	30	DEC	50	10	20	DEC
80841	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80842	60	N/A	70	N/A	40	N/A	DEC	N/A	DEC	N/A	DEC	N/A
80843	80	N/A	90	N/A	110	N/A	DEC	N/A	10	N/A	DEC	N/A
80844	20	DEC	30	DEC	20	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80845	DEC	N/A	DEC	N/A	N/A	N/A	DEC	N/A	DEC	N/A	N/A	N/A
80846	DEC	N/A	N/A	N/A	N/A	N/A	DEC	N/A	N/A	N/A	N/A	N/A
80847	90	40	90	DEC	100	20	180	20	170	40	70	10
80848	30	DEC	30	DEC	20	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80849	120	10	90	DEC	N/A	N/A	80	DEC	60	DEC	N/A	N/A
80850	30	N/A	N/A	N/A	80	N/A	DEC	N/A	N/A	N/A	DEC	N/A
80851	DEC	DEC	20	DEC	10	DEC	DEC	DEC	DEC	DEC	DEC	DEC

TABLE 5.10-18 PROPANE GAIN CHECK (PORTLAND FLEET)

	PRE-TEST						POST-TEST					
	PCV IN PLACE		PCV REMOVED		PCV HOSE REM'D		PCV IN PLACE		PCV REMOVED		PCV HOSE REM'D	
EPA NO	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE
60901	130	40	110	50	100	60	60	30	110	50	60	30
60902	DEC	DEC	DEC	DEC	DEC	DEC	80	20	100	40	80	40
60903	10	DEC	40	DEC	10	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60904	170	40	190	70	130	40	110	50	160	40	100	40
60905	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60906	DEC	DEC	30	DEC	10	DEC	60	20	80	20	DEC	DEC
60907	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60908	360	90	350	110	280	120	340	90	440	120	350	100
60909	40	10	50	30	20	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60910	DEC	N/A	N/A	N/A	DEC	N/A	DEC	N/A	N/A	N/A	DEC	N/A
60911	DEC	N/A	N/A	N/A	DEC	N/A	DEC	N/A	N/A	N/A	DEC	N/A
60912	100	20	140	40	60	20	100	20	140	40	70	30
60913	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60915	30	DEC	30	DEC	30	DEC	40	DEC	80	DEC	30	80
60917	60	30	80	50	50	20	60	20	90	30	50	10
60919	90	40	50	40	70	40	120	60	140	50	150	40
60920	110	40	140	30	110	40	60	DEC	80	30	50	20
60921	100	DEC	90	DEC	80	DEC	60	20	30	20	50	20
60923	190	60	240	80	160	60	180	60	210	90	160	70
60924	70	10	70	50	40	20	40	20	80	40	60	10
60925	30	DEC	60	DEC	30	DEC	60	DEC	70	10	80	DEC
60926	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60927	110	30	90	20	80	10	190	40	150	50	100	40
60928	130	50	190	80	150	60	70	50	120	60	60	70
60929	40	DEC	90	DEC	60	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60930	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60931	100	N/A	N/A	N/A	N/A	N/A	100	N/A	N/A	N/A	N/A	N/A
60932	220	60	240	90	160	60	150	40	70	50	80	30
60933	30	DEC	20	DEC	30	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60934	30	N/A	60	N/A	20	N/A	DEC	N/A	80	N/A	DEC	N/A
60935	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60936	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60937	40	DEC	30	DEC	20	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60938	10	DEC	50	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60939	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC

TABLE 5.10-18 PROPANE GAIN CHECK (PORTLAND FLEET) CONT'D

EPA NO	PRE-TEST PCV IN PLACE NEUTRAL	PRE-TEST PCV IN PLACE DRIVE	PRE-TEST PCV REMOVED NEUTRAL	PRE-TEST PCV REMOVED DRIVE	PRE-TEST PCV HOSE REM'D NEUTRAL	PRE-TEST PCV HOSE REM'D DRIVE	POST-TEST PCV IN PLACE NEUTRAL	POST-TEST PCV IN PLACE DRIVE	POST-TEST PCV REMOVED NEUTRAL	POST-TEST PCV REMOVED DRIVE	POST-TEST PCV HOSE REM'D NEUTRAL	POST-TEST PCV HOSE REM'D DRIVE
60940	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A
60941	130	N/A	110	N/A	120	N/A	DEC	N/A	DEC	N/A	DEC	N/A
60942	DEC	N/A	40	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A
60943	DEC	DEC	40	DEC	10	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60944	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A
60945	DEC	DEC	DEC	DEC	DEC	DEC	70	10	90	20	70	DEC
60946	110	40	180	50	110	30	110	DEC	140	60	70	20
60947	50	20	50	10	40	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60948	50	N/A	N/A	N/A	50	N/A	DEC	N/A	N/A	N/A	DEC	N/A
60949	30	DEC	50	DEC	10	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60950	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60951	40	N/A	N/A	N/A	N/A	N/A	DEC	N/A	N/A	N/A	N/A	N/A
60952	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60953	DEC	DEC	20	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
60954	30	20	60	50	60	40	DEC	DEC	DEC	DEC	DEC	DEC
80901	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A
80902	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A
80903	310	130	470	200	300	140	250	110	350	190	230	120
80904	50	30	80	30	50	20	90	30	70	20	80	30
80906	60	20	60	10	60	20	80	20	70	30	80	20
80907	170	30	190	40	150	30	180	30	220	40	150	40
80908	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80909	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80910	20	DEC	20	DEC	N/A	N/A	DEC	DEC	20	DEC	N/A	N/A
80911	140	30	160	50	120	10	130	30	150	50	100	30
80912	70	N/A	110	N/A	110	N/A	30	N/A	110	N/A	100	N/A
80913	80	30	90	30	80	30	90	30	110	40	80	20
80914	110	30	110	30	120	30	140	30	170	40	130	30
80915	40	10	50	20	40	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80916	60	20	100	30	60	30	DEC	DEC	DEC	DEC	DEC	DEC

TABLE 5.10-18 PROPANE GAIN CHECK (PORTLAND FLEET) CONT'D

EPA NO	PRE-TEST						POST-TEST					
	PCV IN PLACE		PCV REMOVED		PCV HOSE REM'D		PCV IN PLACE		PCV REMOVED		PCV HOSE REM'D	
	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE	NEUTRAL	DRIVE
80919	160	30	160	40	110	30	220	50	200	80	140	70
80920	110	40	130	60	70	40	90	40	90	60	80	70
80921	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80923	180	90	230	80	190	70	50	30	90	50	140	40
80924	70	20	90	40	70	20	DEC	DEC	DEC	DEC	DEC	DEC
80925	80	20	120	40	70	20	10	20	90	20	60	20
80926	50	10	60	10	50	10	50	DEC	110	DEC		
80927	210	110	240	120	200	120	140	80	200	100	60	30
80928	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A
80929	160	10	160	20	140	10	50	DEC	130	DEC	90	DEC
80930	100	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A
80931	60	DEC	180	40	20	10	DEC	DEC	DEC	DEC	DEC	DEC
80932	30	DEC	30	10	20	10	30	DEC			DEC	DEC
80933	50	10	60	20	50	20	DEC	DEC	DEC	DEC	DEC	DEC
80934	40	40	60	20	40	30	DEC	DEC	DEC	DEC	DEC	DEC
80935	140	10	150	20	90	30	50	20	10	20	0	10
80936	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A	DEC	N/A
80937	110	20	120	30	110	20	140	DEC	100	20	70	DEC
80938	40	N/A	50	N/A	50	N/A	DEC	N/A	DEC	N/A	DEC	N/A
80939	70	10	70	30	50	DEC	40	DEC	50	DEC	30	DEC
80940	90	DEC	110	DEC	40	DEC	30	DEC	80	10	40	0
80941	40	DEC	70	DEC	10	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80942	DEC	N/A	N/A	N/A	DEC	N/A	DEC	N/A	N/A	N/A	DEC	N/A
80943	370	90	400	120	380	130	80	60	130	60	150	40
80944	140	N/A	210	N/A	180	N/A	140	N/A	210	N/A	200	N/A
80947	80	20	120	50	50	40	DEC	DEC	50	10	20	DEC
80948	70	DEC	80	10	40	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80949	50	DEC	80	10	40	10	DEC	DEC	DEC	DEC	DEC	DEC
80950	DEC	DEC	40	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80951	30	N/A	N/A	N/A	30	N/A	30	N/A	N/A	N/A	DEC	N/A
80952	80	10	90	10	40	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80953	260	70	290	100	230	90	30	10	60	10	20	10
80954	20	DEC	30	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
80955	80	10	80	10	70	10	DEC	DEC	DEC	DEC	DEC	DEC
80956	120	N/A	240	N/A	180	N/A	DEC	N/A	DEC	N/A	DEC	N/A

TABLE 5.10-19 DIAGNOSTIC INSPECTION RESULTS (VANCOUVER FLEET)

EPA NO	IDLE SPEED MEAS	IDLE SPEED SPEC	DWELL MEAS	DWELL SPEC	TIMING MEAS	TIMING SPEC	MECH ADV MEAS	MECH ADV SPEC	TOTAL ADV MEAS	TOTAL ADV SPEC	PROBLEM AREAS
60801	890	850	59	52	+06	+10	19	25	23	35	TIMING, DWELL
60802	530	550	NA	NA	+08	+10	19	19	33	39	SPARK PLUGS, AIR FILTER
60803	650	600	NA	NA	+06	+08	16	21	37	35	SPARK PLUGS, IGN. WIRES
60804	850	850	46	52	+02	+02	15	12	NA	NA	DWELL
60805	680	750	NA	NA	+02	+02	20	18	42	40	NONE
60806	1090	925	NA	NA	-02	-03	17	14	22	25	IDLE SPEED
60807	1160	800	NA	NA	+08	+10	21	20	47	33	IDLE SPEED, VAC. ADVANCE
60808	570	600	NA	NA	+09	+12	16	21	30	40	TIMING, SPARK PLUGS, AIR FILTER
60809	610	600	NA	NA	+04	+06	17	20	36	38	SPARK PLUGS
60810	390	550	NA	NA	+19	+16	30	24	49	44	TIMING, SPARK PLUGS, PCV
60811	560	600	NA	NA	+05	+06	15	17	14	41	VACUUM ADVANCE
60812	510	550	NA	NA	+19	+16	31	24	49	44	TIMING, SPARK PLUGS, EGR
60813	460	550	NA	NA	+20	+22	25	29	50	51	IDLE SPEED
60814	480	550	NA	NA	+19	+22	29	29	48	51	IDLE SPEED, TIMING
60815	570	600	NA	NA	+10	+06	23	20	42	38	TIMING
60816	500	550	NA	NA	(UNABLE TO READ TIMING MARK)						SPARK PLUGS
60817	550	600	NA	NA	+11	+12	17	18	38	38	NONE
60818	550	650	NA	NA	+08	+12	20	25	43	51	IDLE SPEED, TIMING, SPARK PLUGS
60819	710	850	53	52	+07	+10	17	25	22	39	IDLE SPEED, TIMING, VAC. ADVANCE
60820	640	550	NA	NA	+22	+08	33	18	34	34	IDLE SPEED, TIMING, EGR, PCV, AIR FILTER
60821	600	600	NA	NA	+06	+08	18	21	33	36	CYL. COMPRESSION
60822	750	750	NA	NA	+01	+02	17	16	36	32	AIR FILTER
60823	850	750	NA	NA	+01	+02	13	16	33	32	IDLE SPEED, EGR
60824	820	750	NA	NA	+05	+02	22	18	40	40	TIMING, EGR, AIR FILTER
60825	640	650	NA	NA	+06	+08	19	21	41	48	SPARK PLUGS
60826	640	550	NA	NA	+19	+20	25	27	45	49	IDLE SPEED
60827	610	750	NA	NA	+18	+20	21	26	45	46	IDLE SPEED
60828	590	600	NA	NA	+12	+12	18	18	38	38	NONE
60829	670	650	NA	NA	+12	+12	26	25	57	51	NONE
60830	710	650	NA	NA	+10	+06	24	26	44	46	TIMING, SPARK PLUGS, AIR PUMP, EGR, PCV
60831	880	850	NA	NA	+05	+04	23	17	44	41	MECH ADVANCE
60832	960	750	NA	NA	+05	+02	19	16	37	32	IDLE SPEED, TIMING
60833	580	650	NA	NA	+05	+04	15	17	42	43	NONE
60834	940	750	NA	NA	+03	+02	18	18	43	40	IDLE SPEED, SPARK PLUGS, VAC. HOSES
60835	600	600	NA	NA	+06	+06	19	20	37	38	CYL. COMPRESSION

TABLE 5.10-19 DIAGNOSTIC INSPECTION RESULTS (VANCOUVER FLEET) (CONT'D)

EPA NO	IDLE SPEED MEAS	IDLE SPEED SPEC	DWELL MEAS	DWELL SPEC	TIMING MEAS	TIMING SPEC	MECH ADV MEAS	MECH ADV SPEC	TOTAL ADV MEAS	TOTAL ADV SPEC	PROBLEM AREAS
60836	600	600	NA	NA	+04	+06	14	17	41	41	NONE
60837	540	600	NA	NA	+06	+06	17	20	38	38	NONE
60838	640	550	NA	NA	+14	+08	24	18	41	34	TIMING
60839	600	550	NA	NA	+17	+16	26	24	48	46	EGR
60840	520	600	NA	NA	+08	+08	21	21	37	36	IDLE SPEED, SPARK PLUGS
60841	630	650	NA	NA	+09	+04	16	13	31	32	TIMING, SPARK PLUGS, EGR
60843	810	700	48	52	+08	+10	19	21	38	39	IDLE SPEED, DWELL
60844	490	550	NA	NA	+15	+18	26	35	57	60	TIMING, MECH. ADVANCE
60845	620	650	NA	NA	+05	+06	25	26	49	46	SPARK PLUGS, PCV
60846	520	600	NA	NA	+10	+08	18	21	36	35	IDLE SPEED
60847	820	850	53	52	+04	+10	10	25	11	35	TIMING, MECH & VAC ADVANCE, SPARK PLUGS
60848	630	700	53	52	+10	+10	22	21	40	39	AIR FILTER
60849	560	600	NA	NA	+07	+08	19	21	41	35	NONE
60850	960	925	58	47	-02	-03	14	14	NA	NA	NONE
60851	600	650	NA	NA	+03	+08	21	26	50	54	TIMING, SPARK PLUGS, AIR FILTER
80801	810	850	NA	NA	+11	+10	19	20	32	45	VACUUM ADVANCE
80802	490	500	NA	NA	+04	+04	16	17	36	36	AIR FILTER
80803	750	850	NA	NA	+05	+06	16	20	39	44	IDLE SPEED, AIR FILTER
80804	620	750	NA	NA	+12	+12	19	18	37	35	IDLE SPEED, EGR
80805	560	550	NA	NA	+08	+20	12	33	36	52	TIMING
80806	530	550	NA	NA	+07	+10	18	20	45	41	TIMING, AIR FILTER
80807	580	550	NA	NA	+11	+12	23	24	49	50	NONE
80808	590	600	NA	NA	+12	+14	16	32	50	60	MECH. ADVANCE
80809	720	700	57	52	+05	+06	23	21	NA	NA	DWELL
80810	520	500	NA	NA	+04	+04	15	17	34	36	NONE
80811	480	600	NA	NA	+13	+15	23	23	48	45	IDLE SPEED, EGR
80812	530	500	NA	NA	+06	+04	18	17	39	36	AIR FILTER
80813	520	600	NA	NA	+08	+08	21	21	39	37	IDLE SPEED, SPARK PLUGS, EGR
80814	930	850	NA	NA	+06	+12	19	22	34	34	IDLE SPEED, TIMING, SPARK PLUGS
80815	460	600	NA	NA	+05	+06	19	20	48	47	IDLE SPEED, TIMING, SPARK PLUGS

TABLE 5.10-19 DIAGNOSTIC INSPECTION RESULTS (VANCOUVER FLEET) (CONT'D)

EPA NO	IDLE SPEED MEAS	IDLE SPEED SPEC	DWELL MEAS	DWELL SPEC	TIMING MEAS	TIMING SPEC	MECH ADV MEAS	MECH ADV SPEC	TOTAL ADV MEAS	TOTAL ADV SPEC	PROBLEM AREAS
80816	840	800	NA	NA	+15	+08	26	18	54	46	TIMING
80817	600	500	NA	NA	+15	+06	33	21	51	45	IDLE SPEED, TIMING, VAC. HOSE
80818	550	550	NA	NA	+23	+22	24	37	51	50	MECH. ADVANCE
80819	450	500	NA	NA	+20	+20	28	37	57	67	MECH. ADVANCE
80820	550	550	NA	NA	+17	+20	24	37	47	61	TIMING, MECH. ADVANCE
80821	680	750	NA	NA	+12	+12	17	18	41	35	SPARK PLUGS, AIR PUMP
80822	510	500	NA	NA	+04	+06	15	19	37	38	VACUUM HOSE, AIR FILTER
80823	660	600	NA	NA	+13	+15	17	21	37	38	NONE
80824	870	850	NA	NA	+09	+10	17	20	31	45	VACUUM ADVANCE
80825	560	550	NA	NA	+25	+20	27	39	52	63	TIMING, MECH. ADVANCE, AIR FILTER
80826	590	550	NA	NA	+23	+22	23	37	54	61	MECH. ADVANCE, SPARK PLUGS
80827	660	580	NA	NA	+12	+10	32	29	55	53	IDLE SPEED
80828	700	600	NA	NA	+07	+06	13	13	29	37	IDLE SPEED, VACUUM ADVANCE
80829	720	750	NA	NA	+06	+16	19	19	19	39	TIMING, VACUUM ADVANCE, AIR PUMP
80830	560	550	NA	NA	+12	+12	24	24	50	50	AIR FILTER
80831	600	600	NA	NA	+03	+09	18	27	52	55	TIMING
80832	480	600	NA	NA	+03	+02	17	16	44	43	IDLE SPEED, EGR
80833	560	500	NA	NA	+05	+06	18	21	42	45	IDLE SPEED
80834	640	500	NA	NA	+21	+20	37	37	61	67	IDLE SPEED
80835	730	750	NA	NA	+19	+16	27	18	27	39	TIMING, MECH & VAC ADV, PLUGS, AIR PUMP
80836	640	550	NA	NA	+14	+15	19	28	42	40	IDLE SPEED, MECH. ADVANCE
80837	530	500	NA	NA	+04	+04	15	17	36	36	EGR
80839	690	500	NA	NA	+12	+14	22	21	42	41	IDLE SPEED
80840	540	575	NA	NA	+01	+16	11	27	36	50	TIMING, EGR, HEAT RISER
80841	550	600	NA	NA	+08	+08	17	19	41	39	EGR
80842	670	850	NA	NA	+03	+10	17	25	36	39	IDLE SPEED, TIMING
80843	800	700	NA	NA	+09	+10	19	21	29	50	IDLE SPEED, VACUUM ADVANCE
80844	530	600	NA	NA	(UNABLE TO READ TIMING MARK)						IDLE SPEED
80845	770	925	51	47	-02	-03	14	15	23	21	IDLE SPEED, DWELL
80846	720	700	NA	NA	+09	+10	19	21	29	50	VACUUM ADVANCE, SPARK PLUGS
80847	520	675	NA	NA	+03	+02	18	16	48	43	IDLE SPEED
80848	600	600	NA	NA	+13	+15	18	23	37	38	MECH ADVANCE, EGR
80849	1280	900	NA	NA	+14	+15	23	23	NA	NA	IDLE SPEED
80850	1120	850	NA	NA	+09	+06	23	20	43	44	IDLE SPEED, TIMING
80851	500	500	NA	NA	+06	+04	17	17	36	36	AIR FILTER

TABLE 5.10-20 DIAGNOSTIC INSPECTION RESULTS (PORTLAND FLEET)

EPA NO	IDLE SPEED MEAS	IDLE SPEED SPEC	DWELL MEAS	DWELL SPEC	TIMING MEAS	TIMING SPEC	MECH ADV MEAS	MECH ADV SPEC	TOTAL ADV MEAS	TOTAL ADV SPEC	PROBLEM AREAS
60901	490	550	NA	NA	+13	+20	21	27	45	49	TIMING
60902	570	600	NA	NA	-02	+06	09	20	29	38	TIMING
60903	573	550	NA	NA	+15	+16	26	24	46	44	NONE
60904	690	750	NA	NA	+03	+02	20	18	24	40	VAC ADVANCE
60905	620	550	NA	NA	+28	+22	35	29	59	51	TIMING, PLUGS
60906	560	600	NA	NA	+06	+06	17	17	47	41	NONE
60907	630	750	NA	NA	+01	+07	15	21	32	37	TIMING
60908	680	550	NA	NA	+18	+18	33	35	59	62	IDLE SPEED
60909	630	650	NA	NA	+08	+06	20	19	39	46	VAC ADVANCE, PCV
60910	820	700	54	52	+04	+10	13	21	37	39	IDLE SPEED, TIMING
60911	740	700	50	52	+09	+10	21	21	43	39	EGR
60912	670	750	NA	NA	+03	+02	20	18	29	40	VAC ADVANCE
60913	580	600	NA	NA	+04	+08	17	21	37	35	TIMING
60915	490	600	NA	NA	+08	+08	24	21	32	35	IDLE SPEED
60917	450	600	NA	NA	+08	+08	21	21	37	36	IDLE SPEED, PLUGS & IGN WIRES
60919	610	550	NA	NA	+12	+16	22	26	47	51	TIMING, VAC HOSE
60920	460	650	NA	NA	+01	+12	11	25	36	51	IDLE SPEED, TIMING
60921	570	550	NA	NA	+11	+12	18	21	35	41	AIR FILTER
60923	530	650	NA	NA	+05	+04	16	17	39	43	IDLE SPEED
60924	560	550	NA	NA	+17	+08	28	18	28	34	TIMING, VAC ADVANCE
60925	580	600	NA	NA	+06	+06	21	20	38	38	EGR
60926	620	550	NA	NA	+21	+22	30	29	51	51	IDLE SPEED, PLUGS, EGR
60927	760	750	NA	NA	+05	+02	27	16	44	32	TIMING, MECH ADVANCE
60928	560	550	NA	NA	+17	+16	26	27	29	44	VAC ADVANCE
60929	560	600	NA	NA	+06	+06	19	20	36	38	NONE
60930	590	650	NA	NA	+01	+06	18	26	43	46	TIMING
60931	760	925	53	47	-04	-03	13	14	30	25	IDLE SPEED
60932	610	750	NA	NA	+02	+02	17	16	31	32	IDLE SPEED, EGR, VAC HOSE
60933	690	750	NA	NA	+02	+02	20	18	34	40	NONE
60934	950	850	52	52	+11	+10	21	25	30	35	IDLE SPEED
60935	560	600	NA	NA	+05	+12	13	18	33	38	MECH ADVANCE
60936	600	600	NA	NA	+07	+06	23	20	42	38	NONE
60937	600	600	NA	NA	-01	+06	10	17	35	41	TIMING
60938	640	650	NA	NA	-01	+12	19	30	45	58	TIMING, EGR
60939	620	650	NA	NA	+05	+04	14	17	39	43	NONE

TABLE 5.10-20 DIAGNOSTIC INSPECTION RESULTS (PORTLAND FLEET) CONT'D

EPA NO	IDLE SPEED MEAS	IDLE SPEED SPEC	DWELL MEAS	DWELL SPEC	TIMING MEAS	TIMING SPEC	MECH ADV MEAS	MECH ADV SPEC	TOTAL ADV MEAS	TOTAL ADV SPEC	PROBLEM AREAS
60940	690	850	55	52	+05	+10	15	25	23	35	IDLE SPEED, TIMING, MECH ADV, PLUGS
60941	800	800	NA	NA	+08	+10	19	20	43	33	NONE
60942	670	850	54	52	+10	+10	23	25	29	35	IDLE SPEED
60943	620	600	NA	NA	+12	+12	17	18	18	38	VAC ADVANCE
60944	630	850	NA	NA	+04	+04	21	17	44	41	IDLE SPEED, SPARK PLUGS
60945	910	750	NA	NA	+20	+20	25	26	42	46	IDLE SPEED
60946	600	550	NA	NA	+18	+20	25	27	51	49	NONE
60947	620	600	NA	NA	+08	+08	21	21	33	36	NONE
60948	820	850	64	52	+03	+02	15	12	NA	NA	DWELL, VAC HOSE
60949	540	600	NA	NA	+10	+08	24	21	40	35	NONE
60950	550	650	NA	NA	+04	+04	15	17	39	44	IDLE SPEED, PLUGS
60951	1110	925	47	47	+01	-03	22	14	28	25	IDLE SPEED, TIMING
60952	580	600	NA	NA	+06	+12	14	21	35	40	TIMING, PLUGS
60953	580	600	NA	NA	+12	+12	19	21	40	40	PLUGS, COMPRESSION
60954	610	550	NA	NA	+01	+08	19	18	16	34	TIMING, VAC ADV, PLUGS, COMPRESSION, AIR FILTER
80901	1160	850	NA	NA	+07	+06	20	20	42	44	IDLE SPEED
80902	940	850	NA	NA	+06	+06	18	20	42	44	NONE
80903	410	500	NA	NA	+06	+04	16	17	36	36	IDLE SPEED
80904	520	550	NA	NA	+15	+15	17	27	43	40	MECH ADVANCE
80906	530	600	NA	NA	+13	+15	19	23	37	38	IDLE SPEED
80907	420	500	NA	NA	+06	+04	18	17	34	36	IDLE SPEED
80908	520	600	NA	NA	+03	+02	17	16	48	43	IDLE SPEED
80909	560	500	NA	NA	+02	+06	17	21	48	45	IDLE SPEED, TIMING
80910	890	900	NA	NA	+15	+15	28	23	29	42	MECH ADVANCE, VAC ADVANCE
80911	480	500	NA	NA	+15	+20	29	37	58	67	TIMING
80912	790	850	NA	NA	+08	+10	17	20	27	45	VAC ADVANCE
80913	600	750	NA	NA	+13	+12	19	18	29	35	IDLE SPEED, PCV
80914	550	500	NA	NA	+05	+04	20	17	37	36	NONE
80915	450	600	NA	NA	+15	+14	13	15	25	35	IDLE SPEED, VAC ADVANCE, VAC HOSE
80916	480	500	NA	NA	+03	+04	15	17	32	36	NONE

TABLE 5.10-20 DIAGNOSTIC INSPECTION RESULTS (PORTLAND FLEET) CONT'D

EPA NO	IDLE SPEED MEAS	IDLE SPEED SPEC	DWELL MEAS	DWELL SPEC	TIMING MEAS	TIMING SPEC	MECH ADV MEAS	MECH ADV SPEC	TOTAL ADV MEAS	TOTAL ADV SPEC	PROBLEM AREAS
80919	550	550	NA	NA	+19	+18	24	35	60	59	MECH ADVANCE
80920	520	500	NA	NA	+07	+06	23	21	23	45	VAC ADVANCE, VAC HOSE
80921	560	600	NA	NA	+07	+08	16	19	39	39	EGR, VAC HOSE
80923	600	550	NA	NA	+09	+12	23	24	48	50	TIMING, EGR, PCV, VAC HOSE
80924	630	750	NA	NA	+17	+16	18	18	NA	NA	IDLE SPEED
80925	520	500	NA	NA	+03	+04	15	17	36	36	NONE
80926	570	550	NA	NA	+23	+22	30	37	55	61	MECH ADVANCE
80927	690	750	NA	NA	+13	+12	18	18	38	35	EGR
80928	790	700	NA	NA	+08	+10	19	21	28	50	IDLE SPEED, VAC ADVANCE, EGR
80929	630	600	NA	NA	+10	+10	19	20	46	41	NONE
80930	960	925	41	47	+03	-03	20	15	21	21	TIMING, DWELL, VAC HOSE
80931	640	575	NA	NA	+16	+16	27	27	52	50	IDLE SPEED
80932	530	550	NA	NA	+11	+12	23	24	49	50	NONE
80933	520	600	NA	NA	+17	+21	18	36	48	60	IDLE SPEED, TIMING, MECH ADV, AIR FILTER
80934	520	585	NA	NA	+12	+10	32	29	58	53	IDLE SPEED
80935	600	550	NA	NA	+20	+20	26	39	53	63	MECH ADVANCE, AIR FILTER
80936	1050	700	55	52	+06	+06	21	21	NA	NA	IDLE SPEED, DWELL
80937	570	600	NA	NA	+04	+02	19	16	45	43	EGR
80938	820	850	NA	NA	+14	+10	23	20	30	45	TIMING, VAC ADVANCE
80939	830	750	NA	NA	+19	+16	29	18	30	39	TIMING, MECH ADVANCE
80940	580	600	NA	NA	+03	+06	19	20	46	47	TIMING, PLUGS
80941	540	500	NA	NA	+20	+20	33	37	64	67	NONE
80942	810	700	NA	NA	+08	+10	20	21	25	50	IDLE SPEED, VAC ADVANCE
80943	600	600	NA	NA	+13	+15	17	21	39	38	EGR, VAC HOSE
80944	830	800	NA	NA	+05	+08	18	18	38	46	TIMING
80947	560	600	NA	NA	+13	+14	22	32	43	60	MECH ADVANCE
80948	580	600	NA	NA	+13	+15	22	23	43	38	EGR, VAC HOSE
80949	580	600	NA	NA	+08	+08	19	21	35	37	EGR
80950	590	500	NA	NA	+03	+04	14	17	35	36	IDLE SPEED, AIR FILTER
80951	810	850	NA	NA	+14	+12	18	22	39	34	EGR
80952	600	600	NA	NA	+17	+14	20	15	44	35	TIMING, PLUGS
80953	520	550	NA	NA	+21	+20	25	29	50	49	NONE
80954	530	600	NA	NA	+16	+14	23	19	44	48	IDLE SPEED
80955	670	500	NA	NA	+13	+14	21	21	41	41	IDLE SPEED
80956	930	850	NA	NA	+11	+10	23	25	23	39	VAC ADVANCE